

Any one out there?

Michael Thompson

HAWK & HANDS

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Austria	100.00	100.00	100.00	100.00
Belgium	100.00	100.00	100.00	100.00
Denmark	100.00	100.00	100.00	100.00
France	100.00	100.00	100.00	100.00
Germany	100.00	100.00	100.00	100.00
Greece	100.00	100.00	100.00	100.00
Italy	100.00	100.00	100.00	100.00
Japan	100.00	100.00	100.00	100.00
Netherlands	100.00	100.00	100.00	100.00
Portugal	100.00	100.00	100.00	100.00
Spain	100.00	100.00	100.00	100.00
Sweden	100.00	100.00	100.00	100.00
Switzerland	100.00	100.00	100.00	100.00
UK	100.00	100.00	100.00	100.00
USA	100.00	100.00	100.00	100.00

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

SOUTH AFRICA
Ramaphosa - master of the compromise
Page 5

FT No. 31,686

THE FINANCIAL TIMES LIMITED 1992

Monday February 17 1992

£ D 8523A

World News Business Summary

Poland plans big shift in economic emphasis

Poland is to announce a shift in economic policy away from fighting inflation and towards easing the rigours of market oriented policies, which have led to rising unemployment and declining living standards.

The move is expected to gain conditional approval from the International Monetary Fund, which suspended disbursement of its \$2.5bn extended loan package last September when the budget deficit and other indices overran agreed targets.

ANC ready to deal
The African National Congress is willing to make concessions on power sharing in a post-apartheid South Africa which could lead to a deal on a new democratic constitution.

Experiments to continue
Swiss voters decided in a referendum not to tighten already stiff regulations on animal experiments. The drug industry and government had said the proposal would have cut life-saving research.

'Up to 6,000' held
Mohammed Bouhadi, head of a military-backed five-man presidency set up to rule Algeria, said there may be 6,000 to 8,000 Islamic Salvation Front supporters in detention camps.

Japan bans Jagger
Rolling Stones lead vocalist Mick Jagger was refused entry to Japan because of a drug arrest in London 23 years ago. He is confined to a Tokyo hotel pending an appeal today.

Bus crash kills 14
Fourteen people died and 42 were hurt when a bus hit a tree and broke in two near Belbeis, north-east of Cairo.

Demonstrators shot
At least 13 people were killed when troops loyal to President Mobutu Sese Seko opened fire on pro-democracy demonstrators in Kinshasa, Zaire's capital.

Friendship move
Bulgaria's president Zhelyu Zhelev, a former dissident, will visit France tomorrow to sign a friendship treaty.

Aid for civilians
The United Somali Congress, one of the main factions fighting in the Somali capital of Mogadishu, has agreed to allow aid workers to distribute food to starving civilians.

Mexico to save forest
Mexico is to enlarge the Montes Azules biological reserve in the Lacandon tropical rain forest by 55,000 hectares.

Overworked Americans
Americans increasingly find themselves overworked and underpaid as they struggle to maintain their living standards, according to a report by the Washington-based Economic Policy Institute.

Merit takes over
British Rail is to abandon its system of promotion by length of service and from the end of next month its 30,000 staff will be promoted on merit.

Angela Carter dies
Author Angela Carter died in London. Her first novel, *Shadow Dance*, was published in 1966 when she was 26. It was followed by several more and by short stories, radio plays, screenplays and non-fiction anthologies.

Law replaces vain pleas
Beijing residents will be required by law to donate blood to ease the capital's shortage. Chinese have traditionally been reluctant to donate, believing that losing blood saps vitality.

Transatlantic phone charges from Germany to be slashed

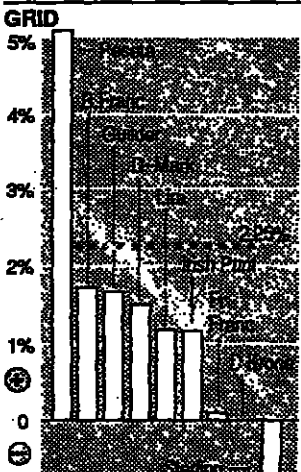
Deutsche Telekom, German state telecommunications monopoly, is to cut transatlantic call charges by up to 37 per cent, and will investigate its entire tariff structure.

The drastic cuts in transatlantic charges, which will lower the cost of a three-minute call to New York from DM3.49 (\$5.93) to DM1.98, follow strong pressure from US and German industry.

PIRELLI chairman Leopoldo Pirelli, 66, is giving up executive control over the loss-making Italian cables and tyres concern.

EUROPEAN Monetary System: The D-Mark was the principal victim of dollar strength last week and, as a result, weakened against most European currencies. The peseta and the dracma, which were both at the D-Mark's expense, although the UK currency remained stubbornly at the bottom of the grid.

February 14, 1992



The chart shows the member currencies of the exchange rate mechanism measured against the D-Mark's narrow 2.25 per cent fluctuation band. In practice, currencies in the EMS narrow band cannot rise more than 2.25 per cent from the weakest currency in that part of the system. Sterling and the Spanish peseta operate with 6 per cent fluctuation bands.

PERIERRE BID: The French government has approved the offer by Nestlé, Swiss foods concern, to buy Perrier, French mineral water group being co-owned by Italy's Agnelli family.

GERMANY fell behind the US as the world's top exporter last year, according to the Institute of the German Economy, after selling \$42.1bn worth of goods abroad in 1990.

TOSHIBA has opened the first Japanese-owned factory to produce air conditioning units in the UK as part of plans to expand its presence in the European market.

BRITISH AEROSPACE: No significant top management reshuffle is expected after the appointment of a new chairman at BAe, the UK's biggest engineering company.

UK FRAUD: A central directory of suspected fraudsters and other wrongdoers is being planned by financial specialists in London and by government officials.

HOOVER, UK white goods manufacturer owned by Maytag of the US, is to sell washing machines to Hitachi for marketing under the Japanese company's name.

BANK of Portugal has dismissed as inaccurate and "unhelpful" a forecast by the Organisation for Economic Co-operation and Development that Portugal's inflation in 1992 will be 10.5 per cent.

Political tensions heighten ahead of more Middle East peace talks

Israel kills Hizbollah leader in air strike

By Hugh Carnegie in Jerusalem

SHEIKH Abbas Musawi, leader of Lebanon's Shia Muslim fundamentalist organisation, Hizbollah, was assassinated yesterday in a rocket attack by Israeli helicopters as he was travelling in a convoy of vehicles in southern Lebanon.

The attack, 30km from the Israeli border, ended a week-end of violence in Israel and Lebanon which seemed bound to escalate political tensions ahead of the next round of Middle East peace talks due to open in Washington early next week, involving Israel, Lebanon, Syria, Jordan and the Palestinians.

Nevertheless, Syria and Lebanon said within hours of Sheikh Musawi's death that they would attend the talks, an announcement likely to be welcomed by Washington as a sign of the durability of the peace process, despite continuing violence on the ground.

The killing of Sheikh Musawi, a key figure in the negotiations last year for the release of western hostages, followed earlier Israeli aircraft and helicopter strikes on Palestinian refugee camps in south Lebanon. These were reprisals for the killing of three Israeli

soldiers at an army camp in Israel late on Friday night. At least four civilians were reported killed in the air attacks on the refugee camps.

Sheikh Musawi's wife, six-year-old son and at least five bodyguards were also killed in the attack.

The Israeli army said the Hizbollah leader had been in the village of Jibsheet meeting a number of Hizbollah officials responsible for organising attacks on Israeli forces.

Israel made no connection between Hizbollah and the death of the Israeli soldiers. The assassinations were believed by Israel to be Palestinian Liberation Organisation activists.

But it was clear that even if not a direct reprisal, the operation to kill Sheikh Musawi offered the government and the defence establishment, embarrassed by Friday night's security lapse, added opportunity to show a show of force.

Mr Moshe Arens, the Israeli defence minister, said last night: "This is a message to all the terrorist organisations that whoever opens an account with us, we will be the ones to close the account. This is true for all the bands, for all the



Abbas Musawi: key figure in negotiations last year for the release of western hostages

terrorist organisations, for all the leaders."

Mr Arens also said that Sheikh Musawi was a man with "lots of blood on his hands. This was an attack intended to hurt Hizbollah."

In Washington, the State Department said the US "was concerned at the rising cycle of violence" and urged all sides to "exercise maximum restraint".

Sheikh Musawi was secretary-general of Hizbollah, the Iranian-backed group best known in the west as the pri-

mary Lebanese organisation involved in hostage-taking.

He was regarded by Israel as being behind a persistent guerrilla campaign against Israeli forces and their allies in southern Lebanon where Israel occupies a "security zone" along the northern side of its border.

The strike was the most dramatic attack by Israel on Hizbollah since it kidnapped Sheikh Abdul Karim Obeid in mid-1989 in a failed attempt to secure the release of Israeli ser-

vicemen held by Lebanese militia. Yesterday's action may have been prompted by the collapse of United Nations efforts to obtain the servicemen's release. However, one side effect may be further to complicate efforts to free two remaining German hostages.

International condemnation has not deterred Israel from continuing to make armed incursions deep into Lebanon.

Shia extremism, Page 2
Israeli protest, Page 5

Bush promises upturn in US economy

By Lionel Barber in Manchester, New Hampshire

A CONFIDENT President George Bush yesterday launched a last-minute drive to win over uncommitted voters in tomorrow's primary election in New Hampshire as his campaign chairman predicted a comfortable victory over Mr Patrick Buchanan, his right-wing Republican opponent.

With polls showing Mr Bush holding a surprisingly strong lead, the White House dismissed fears that Mr Buchanan would embarrass the president in this recession-hit New England state, enabling him to

continue his insurgent campaign.

Mr Robert Teeter, Bush campaign chairman, said in a television interview that there was no evidence that Mr Bush was in trouble. "He will win, and he will win comfortably," Mr Teeter insisted.

The president, who drew small, politely enthusiastic crowds during two days of late-scheduled campaigning at the weekend, took the high road yesterday. He avoided attacks on his opponent and promised an upturn in the US economy.

"Housing and real estate are going to lead the recovery," he told a breakfast audience yesterday.

In the Democratic race, former senator Paul Tsongas of Massachusetts basked in his new position as the front runner, maintaining a clear lead over Governor Bill Clinton of Arkansas, the previous favourite who has been damaged by unsubstantiated charges of draft-dodging during the Vietnam war and adultery.

Mr Clinton's slide has provoked a desperate scramble

among the other Democratic candidates whose survival depends on a second or third place showing in tomorrow's primary, the first of the 1992 election campaign. Last night, all five Democrats were preparing for a televised debate in Manchester.

Political experts predict a heavy turnout in New Hampshire which has a tradition of election upsets and come-from-behind wins such as Mr Bush's victory in 1988. This unpredictability is compounded by the economic troubles in the state

which has gone from boom to bust since Mr Bush took office in 1989.

Mr Buchanan, the television commentator and former speech writer to presidents Nixon and Reagan, has preached an "America first" message which leans toward protectionism and isolationism. He has accused Mr Bush of being "the biggest spender and taxer in American history" and being an absentee president out of touch with ordinary people. On Saturday, Mr

Buchanan is expected to continue on page 14

Opec agrees oil output cut in move to shore up prices

By Deborah Hargreaves in Geneva

MINISTERS from the Organisation of Petroleum Exporting Countries (Opec) agreed late last night to cut their production by just over 1m barrels a day in a desperate attempt to shore up oil prices.

The deal was a hasty compromise stitched together after five days of the toughest talks among oil producers since the Gulf crisis. But the deal failed to hide deep divisions within the organisation over its future policy on oil prices.

The agreement, which is designed to underpin world oil prices, could be undermined as Saudi Arabia and Iran, two of Opec's largest producers, publicly expressed doubts about its terms.

Saudi Arabia called the credibility of the deal into question when Mr Ehsan Nazari, the kingdom's oil minister, said he was dissatisfied with his country's production allocation. Mr Nazari was under strong pressure from King Fahd, the Saudi ruler, to resist attempts

by other producers to force the kingdom to cut its output below 8m barrels a day (b/d).

Mr Nazari said: "I cannot accept this ceiling and believe it cannot help the price."

The overall production ceiling agreed by Opec's 13 members calls for a reduction in the flow of oil to 22.5m b/d from current production of 24.2m b/d, with Saudi Arabia reducing output by an average of 9 per cent. But since Saudi Arabia has said it will not abide by its allocation of 7.5m b/d and will produce at about 8m b/d, overall Opec output will be slightly higher than 22m b/d in the next two months.

Mr Nazari said: "It is better to arrive at an agreement than at no agreement at all." There was general agreement that it was crucial to signal to the

market that producers were willing to cut production. Oil prices since last November have declined by more than \$4 a barrel, putting a squeeze on Opec members' revenues.

According to Mr Mike Rothman, senior energy futures analyst at Merrill Lynch, an agreement to cut production to 22m b/d will do little more than keep oil prices where they are now - at about \$18.50 a barrel for North Sea crude.

Mr Nordine Ait Laoussine, Algeria's oil minister, said: "I don't believe it's enough to bring about a meaningful price recovery which we'd all hoped for, but it's large enough to arrest a further deterioration of the market which we all fear."

Saudi Arabia invested billions of dollars during the Gulf crisis to help make up for the absence of Iraqi and Kuwaiti crude from the market. It is

Continued on Page 14
Russian strike, Page 3

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THE MONDAY INTERVIEW

One year after the UK privatised its electricity industry, much of the debate about its future takes place in a large, 15th-floor office overlooking central Birmingham occupied by Professor Stephen Littlechild, the director-general of electricity supply.

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FT SURVEYS THIS WEEK



Portable Computers
New pen-based computer systems generate excitement because they allow a wide range of users to exploit computer technology. These systems could herald the next revolution in computing: see today's survey.

TODAY: Philippines: belated reforms aim to counter economic drift. See separate section.
Portable Computers: how technology is changing attitudes towards computing. See separate section.
TOMORROW: Tyne and Wear: a resilient response to the recession.
WEDNESDAY: FT Traveller, Hong Kong: our guide for the business visitor.
THURSDAY: Corporate Contract Services: cost savings spur use of outside agencies.
Vehicle Fleet Management: coping with a stretched car and truck replacement cycle.

INTERNATIONAL NEWS

Industrialists criticise reform

Bonn pledges further cuts in corporate tax

By Quentin Peel in Bonn

GERMAN industrialists have been promised a second round of corporate tax cuts before the end of the year, after criticising last week's government tax reforms as inadequate to improve competitiveness.

At the same time they stepped up at the weekend their campaign calling for further substantial tax cuts, and warning of the dangers of big increases in the current round of wage negotiations.

Both the federation of German industry (BDI) and Mr Jürgen Möllemann, economics minister, agreed in separate statements that top marginal rates of both corporate and income tax should be cut to 48 per cent, from 50 and 53 per cent respectively.

However, while Mr Möllemann promised a second round of tax reforms this year, the industrialists voiced doubts that it would be possible, given the strain on the state budget.

The BDI issued a sharp critique of the tax package approved on Friday in the Bundestag, the upper house of the German parliament, in spite of government jubilation at having split the Social Democrat opposition when forcing the bill through a months-long negotiating procedure.

By offering German states, especially the five in former East Germany, a significant transfer of tax revenues, including the entire benefit of an increase in value added tax from 14 to 15 per cent next year, the central government had left itself no further room for tax reform manoeuvre.

The package - which would originally have given the business sector overall cuts of about DM7.4bn (£2.57bn) through increased thresholds for business property tax and tax on trade earnings, and the abolition of trading capital tax - was watered down to a net gain of only DM4.4bn in negotiations. The trading capital tax will now be retained.

The BDI said in a statement that industry feared the "exceedingly" generous financial offer to the federal states "limits the negotiating capacity of the state excessively, and leaves no room for necessary

Mr Helmut Schlesinger, Bundesbank president, sees no compelling motivations for the government to either raise or lower German interest rates, according to an interview published in Der Spiegel, AP-DJ reports from Frankfurt.

He also admits in the German magazine article that the Bundesbank's middle range goal of a 2 per cent inflation rate will not be reached this year.

However it was possible that the rate this year could show a "3 before the decimal point" if certain conditions were met.

steps to reform".

Mr Heinrich Weiss, president of the BDI, said in an interview at the weekend that Germany was losing 100,000 jobs a year because German companies were investing overseas as a result of high wages and taxes.

Mr Klaus Murrmann, president of the German employers' association, the BDA, said there would be a further export of jobs if there was not a radical change in wages policy.

However, Mrs Monika Wulf-Mathies, leader of the public service trade union, OTV, said last week's tax package, including the VAT increase, gave the union "no reason to show restraint". Her union's annual wage negotiations with the government have just begun.

The Social Democrats (SPD) have been left in disarray as a result of the tax deal, having sought to block it entirely in the Bundestag.

As a result, the city government of Berlin, ruled by a grand coalition of SPD and Chancellor Helmut Kohl's Christian Democrats (CDU), is in danger of collapse.

Mr Eberhard Diepgen, the CDU mayor, threw his weight behind the tax package on Friday, to the dismay of his SPD colleagues.

Mr Björn Engholm, SPD national chairman, is attempting to save some face for his party by appealing today for national negotiations on the state of the economy.

Vukovar adapts to post-war 'normality'

Neither Serbs nor Croats are yet committed to the city's renewal, writes Laura Silber

LIFE in Vukovar, scene of the worst fighting during the seven-month war in the breakaway republic of Croatia, is returning to normal. That is according to Serbia's state-run media.

In the streets, the picture is different. The federal army has cleared the corpses from the streets. It has bulldozed away the rubble left by the war. But the charred skeletons of buildings bear testimony to last year's three-month-long battle for control of Vukovar between Serb irregulars backed by the Yugoslav army and the Croat national guard.

Serbia, under President Slobodan Milosevic, has promised to help rebuild this city. Serbian news reports boast of progress in the renovation of Vukovar, currently under federal army control. But neither Serbia nor Croatia will commit themselves to rebuilding Vukovar, set on the banks of the River Danube in the contested fertile plains of eastern Croatia, until the question of borders is settled.

Not a single structure in the city centre escaped damage. The trees are blackened by battle. The altar of the Catholic church stands at a bizarre angle. The rest of the building has crumbled under grenades.

An army officer married a local Vukovar bride at the weekend in the Serbian Ortho-

dox church. The priest says a bomb planted in the church last November tore away the roof and destroyed all but one of the 250-year-old frescoes.

"I have lost everything. All I own are the clothes on my back," says Mr Jovan Njegic, weeping in the church. Mr Njegic, a 63-year-old retired accountant who is a Serb, says: "Before the troubles started, we never asked about people's nationality. Now there is no one left to ask."

His wife, a Croat, fled to Croatia last autumn. Two of his three children, who married Croats, have abandoned the town fearing reprisals by Serb fighters who seized control of the local government.

One of Mr Njegic's sons, an architect, remained to help in the rebuilding of Vukovar. But the buildings which can be restored, even if funds were available, are a tiny minority.

The people who have remained in Vukovar have nowhere else to go. Mr Zeljko Viscetic, a former factory worker now a policeman, is clearing out refuse, the destroyed belongings of the former tenant. Mr Viscetic, a Serb,



says the local government gave him permission to restore the flat for his aunt. The fate of Mr Andrija Sabosic, a Croat who used to occupy the flat is unknown. "He is either dead or in prison. He was Ustashe," says Mr Viscetic, referring to the brutal Croat fascist regime during the Second World War.

From his swaying balcony the once-pretty view is one of ruin. Next door, Mrs Marija Lukic, a 51-year-old Croat factory worker, says: "During the fighting I huddled in my fourth-floor flat with my Serbian neighbours. I told my chil-

dren to leave, that my fate was to protect the little we had."

Mrs Lukic, who was seriously wounded when mortars shattered the walls of her flat, just one week before Vukovar fell to the army on November 18, is uncertain about her future. The fighting destroyed the Borovo rubber factory where she was employed. She receives no benefits from Croatia or Serbia. She and the few thousand people who have returned to Vukovar survive on handouts from the army.

They take their meals at the local barracks, which despite claims of a Croat siege were barely damaged during the fighting. Army check points at every village leading to Vukovar require inhabitants to show a special pass. Many of Vukovar's inhabitants appear to welcome the arrival of the UN peacekeepers who will replace the army. But they are clearly unaware of the terms of the UN plan. Uncertain about a life under UN protection, they say the peacekeepers should not be stationed in Vukovar.

But most people do not leave Vukovar. Mr Njegic says he has no money to travel anywhere. Waiting for help, he will remain amid the ghosts of a once harmonious population. He says: "No one will give any real aid until they decide who Vukovar belongs to."

Swiss reject tighter code on animal protection

SWISS voters yesterday rejected a proposal that would have tightened further already stiff regulations on animal experiments. Reuter reports from Zurich.

Officials in Bern said a majority of Switzerland's cantons (regions) had voted against the proposal, which had sparked one of the country's most emotive referendum campaigns.

To succeed, the proposal needed the backing of at least half of Switzerland's 26 cantons, regardless of the popular vote.

The drugs industry and government had said the proposal would cut life-saving research and jobs.

Interpharma, an organisation representing Switzerland's world-leading pharmaceutical and chemical industry, said the result was a "clear indication of the commitment of the Swiss people to continue as a leading country in medical and biomedical research".

Russian oil workers lower production

By Leyla Boulton in Moscow

STRIKING oil workers in Russia's northern region of Komi have halved one-tenth of their oil production to press demands for the freeing of energy prices, special tax benefits, and improved supplies of industrial equipment, food and consumer goods.

Itar-Tass news agency said workers in the Komi autonomous republic, who began warning stoppages at 90 oil wells at the weekend, had decided to abstain from further action elsewhere until today, pending talks with the government in Moscow. The shortfall amounts to more than 3,500 tonnes a day.

Oil workers in both Komi and Tyumen, by far Russia's

largest oil producing region, have been threatening strike action for weeks. They say the government has failed to honour a promise by President Boris Yeltsin to let them sell one-tenth of the oil produced for their own benefit. The government has been working on a deal to raise workers' pay and eventually to free the domestic price of oil, currently fixed at Rhs350 a tonne for deliveries to the state.

Total Russian oil output last year is estimated at 461m tonnes, 11 per cent down from 1990.

Cuba has begun deliveries of raw sugar to Russia in exchange for badly-needed crude oil, Radio Moscow said yesterday.

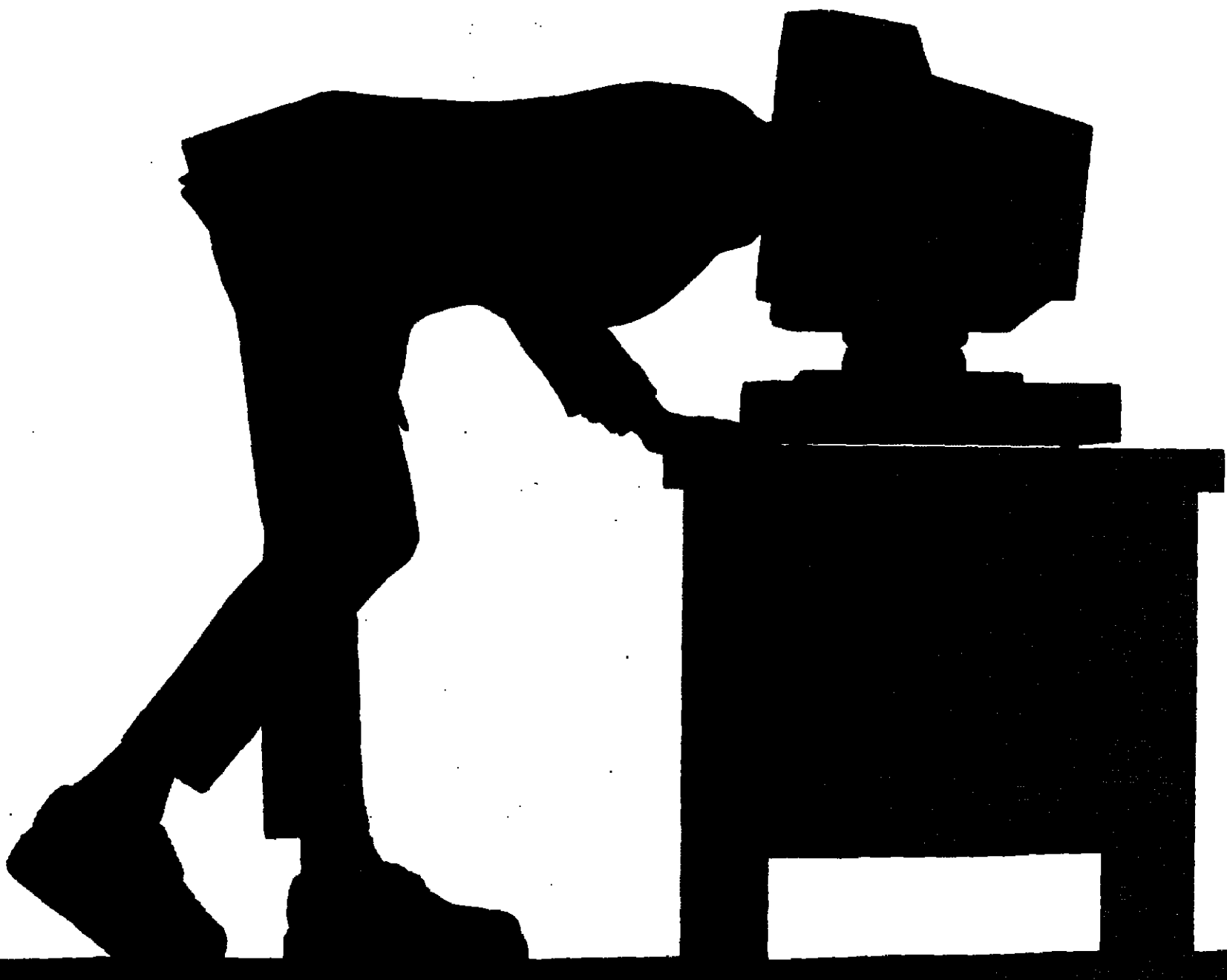
The report said Cuba would deliver 500,000 tonnes of sugar, paid for with 900,000 tonnes of crude oil, by the end of April.

The Russian government said last month it planned to sell 1.5m tonnes of oil, 400,000 tonnes of diesel and 300,000 tonnes of mazut fuel in January and February to pay for 1m tonnes of raw sugar.

Interfax news agency said the deal was offered first to Cuba, with the commodities offered on world markets if no agreement was reached.

The barter arrangement was based on world prices.

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Algeria
presses
Gulf states
for aid



Iran lo
alliance

IRAN yesterday inaugurated summit talks with Pakistan, Soviet Moscow first step toward economic and political south-west reports from Tehran President Ali Akbar Rafsanjani before opening summit it was the emerging truce Soviet center to the three front of the Economic Organization (ECO) of the ECO hopes of Azerbaijan and Uzbekistan. Tajikistan, with into a group the subversively station 25 years a Ashka and in

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INTERNATIONAL NEWS

Algeria presses Gulf states for aid

By Tony Walker in Algiers

ALGERIA is pressing Gulf states and potential aid donors for up to \$2bn (£1.1bn) in emergency assistance to combat severe economic difficulties, which it blames for recent Islamic fundamentalist-inspired unrest.

Mr Lakdar Brahimi, Algeria's foreign minister, visited Saudi Arabia at the weekend at the start of a Gulf tour apparently aimed at securing Arab financial support.

According to Algerian officials, Mr Brahimi is taking a similar message to that put in Lisbon, last week, to his Portuguese counterpart, Mr João de Deus Pinheiro.

"We need assistance right now," said one official. "If, tomorrow, there is civil war, the instability will be felt everywhere, including Europe and the Arab world."

A state of emergency was declared in Algeria about a week ago after days of rioting had left at least 50 people dead and hundreds wounded.

The disturbances followed the cancellation of a second round of voting in national elections in which the Islamic Salvation Front (FIS) was certain to consolidate a landslide victory.

Algeria's plea for additional help coincides with delicate negotiations with its main creditor banks for the "re-profiling" of about \$1.5bn in short-term commercial debt.

Algerian central bank officials insist they are not seeking rescheduling, but are asking instead for an extension of the debt's maturities to an average of about eight years.

About 85 per cent of the debt is owed to Japanese and French banks.

Attempts by a core group of creditor banks, led by Credit Lyonnais to reach agreement on a "re-profiling" package are being held up because of objections by Bankers Trust of the US whose limited exposure in Algeria amounts to about US\$50m.

It is estimated that such an arrangement would release about \$800m to help fund imports of raw materials, spare parts and equipment to spur Algeria's recovery.

The government is finalising an emergency economic programme aimed at solving Algeria's chronic housing problem and at providing jobs for an army of unemployed young people.

Algeria, whose external debt totals about \$27bn has been squeezed since the mid-1980s by the collapse in oil prices.

Its economy - oil and gas account for 97 per cent of export earnings - has registered negative growth in recent years, and its difficulties in meeting its debt commitments have added to its economic woes.

Mr Mohammed Boudiaf, head of a military-backed five-man presidency set up to rule Algeria, told the foreign press yesterday there "may be 5,000 to 6,000" FIS supporters in detention camps.

It was the first official acknowledgement that such a large number of suspected FIS activists had been rounded up. Previously, government officials had spoken of hundreds.

The authorities are known to have established several detention centres outside Algiers to accommodate people arrested under the state of emergency declared more than a week ago.

South Africa's master of the strategic compromise

Cyril Ramaphosa, ANC secretary-general, is instrumental in shaping a post-apartheid society, writes Patti Waldmeir

THE African National Congress is willing to make major concessions on the issue of multi-racial power sharing in a post-apartheid South Africa, which could form the basis of an eventual deal on a new democratic constitution.

Mr Cyril Ramaphosa, ANC secretary-general, said in an interview that a post-apartheid ANC government would rule in coalition with the mainly white National Party, the current ruling party, even if the ANC won a large majority of votes.

The 38-year-old Mr Ramaphosa is the most important black leader in South Africa apart from ANC President Nelson Mandela. When it comes to ANC policy, his influence not only rivals, but possibly exceeds, that of the septuagenarian Mr Mandela.

It might be argued that South Africans would not now be pushing forward to all-party interim government if it were not for Mr Ramaphosa. When he took over as secretary-general last July, the ANC and Pretoria were locked in a fruitless dispute over violence. He insisted that talks on a new constitution begin immediately, dropping the pre-condition (imposed by Mr Mandela, among others) that certain obstacles first be removed. A man of easy charm and humour, he quickly won the trust of his interlocutors.

As a former trade unionist, he is a master of the strategic compromise. True to form, he used an interview with the Financial Times to offer significant concessions to the ruling National Party.

On a coalition with the National

party, he concedes: "We would agree, soon after a new constitution is adopted, you may well need to bring in people from other parties into government." He speaks in the soft and deliberate voice, devoid of arrogance, which makes him such a favourite among senior Nationalists.

He cites the example of Zimbabwe, where white ministers held key portfolios in the first post-independence government.

Coalition government is the National party's bottom line, and he knows it. But the Nationalists are demanding much more than Mr Ramaphosa is willing to give: they want rule by coalition entrenched in the constitution; the ANC leader insists it should be voluntary.

"We would be quite vehemently opposed to a situation where we would be forced to get into a coalition government with any party...our view is that forced marriages don't work." He believes that coalitions will arise naturally out of South Africa's political and ethnic diversity.

The Nationalists want more security than that, to prevent domination by the black population: South Africa, including the nominally independent "homelands", has 28m blacks and only 5m whites.

Mr Ramaphosa has an offer to make in this regard as well: "You need a constitution which has sufficient checks and balances to prevent one dominant party exercising power all on its own." But checks and balances are not all he is offering: "you could have a system where

you share power by saying that on certain clauses of the constitution - amending the constitution or taking particular decisions - you would require...a majority which would need the agreement of other parties in parliament."

That could well be a permanent feature in a constitution - the type of feature that could give comfort to those parties that feel they could be marginalised by a majority party.

That would depend, of course, on the areas subject to joint decision-making. Here Mr Ramaphosa is surprisingly flexible: he suggests that the budget might be one such area.

On the issue of devolution of power to the regions - one of the main planks in Nationalist strategy - Mr Ramaphosa is conciliatory, as a liberation movement, the ANC clings to the vision of a popular grassroots democracy requiring maximum devolution. But he knows that the Nationalists want devolution so that they can weaken a central government dominated by the ANC, and to enable them to retain what he calls "pockets of apartheid" - white neighbourhoods where local regulations effectively keep out blacks. That would be "completely out of the question," he says.

For the moment, forming an interim government is the priority. The ANC proposes a council of state to make policy, while ministers continue to run their departments: Pretoria could probably agree to this. But Mr Ramaphosa says an interim

parliament/constituent assembly would have to be unicameral, with no special weighting for minorities; the government wants a bicameral body, with an upper house where minorities have veto power.

That could well be the crunch point," says Mr Ramaphosa. "We can only think of one method of election, that is one person one vote on a common voters roll based on proportional representation."

On economic policy, there is likely to be even less common ground between Pretoria and the ANC - despite recent reassurances from Mr Mandela that the ANC has outgrown nationalisation. The ANC president may have realised the dangers of preaching nationalisation - foreign investors on his recent overseas trip clearly shocked him with the vehemence of their opposition - but other ANC leaders have learned no such lesson.

Mr Ramaphosa could well prove Mr Mandela's sternest opponent on the issue when the ANC meets for an economic conference in April. He refuses to comment on economic questions - minimal, no doubt, that contradictory statements on debt repayments (from him and Mr Mandela) have hurt the ANC's image. But he is understood to describe himself privately as a socialist.

However, Mr Ramaphosa is not without humour on the matter. He drew attention to a framed cartoon on his office wall: it shows him flogging a dead horse labelled "investment" and shouting "That'll teach you! Now giddyup!"



Ramaphosa: willing to make major concessions on power sharing

Omani bank takes over local BCCI operations

OMAN announced yesterday that a domestic bank has taken over the local operations of the collapsed Bank of Credit and Commerce International (BCCI), allowing all BCCI depositors in the Sultanate to be repaid in full, AP-DJ reports from Manama.

The central bank of Oman said BCCI's local assets and liabilities had been transferred to Bank Dhofar al-Omani al-Farasi.

"By this action the Sultanate of Oman becomes one of the first countries in the world where [BCCI] depositors and creditors will receive their funds without any deductions, notwithstanding the deficit in the balance sheet which resulted from mismanagement abroad," the central bank said in a statement.

Banking sources said Oman will inject OMR10m (£16.5m) into the merged institution to cover the shortfall.

Oman shut down BCCI's local branches on July 5, soon after the Bank of England and other regulators seized the bank amid allegations of widespread fraud.

The Abu Dhabi government owns a majority stake in BCCI and is currently involved in negotiations to liquidate the bank and provide partial compensation for depositors.

BCCI Oman had a loan book totalling OMR44m and deposits of OMR57m, which will all now be assumed by Bank Dhofar, according to the bank's general manager, Mr Noreddin Nabawi.

He said Bank Dhofar had boosted its paid-up capital by OMR10m to OMR15m ahead of the merger.

Iran looks to Islamic alliance in west Asia

IRAN yesterday said the inaugural summit with Turkey, Pakistan and former Soviet Muslim states was a first step towards an Islamic economic and political alliance in south-west Asia, Renter reports from Tehran.

President Ali Akbar Hashemi Rafsanjani said shortly before opening the two-day summit it was "natural" for the emerging republics of former Soviet central Asia to turn to the three founder-members of the Economic Co-operation Organisation (ECO).

The ECO hopes the inclusion of Azerbaijan, Turkmenistan and Uzbekistan, and possibly Tajikistan, will inject new life into a group that has existed unobtrusively since its creation 27 years ago by Tehran, Ankara and Islamabad.

The leaders of the traditionally Muslim former Soviet states of Turkmenistan, Azerbaijan, Kirgizia and Kazakhstan are attending the meeting.

Apart from taking in new members, the meeting is likely to approve a 10 per cent lowering of tariff barriers between Turkey, Iran and Pakistan and to discuss steps towards freer trade and movement of people.

The meeting will also offer an opportunity to discuss regional disputes such as the civil war in Afghanistan and the conflict between Armenia and Azerbaijan over Nagorno-Karabakh.

Iran, Pakistan and Turkey all say they support United Nations peace efforts for Afghanistan, seen as another potential ECO member.



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Software? There's 40 billion dollars worth written specifically for Intel. And this year we're investing a billion dollars (\$600m in R & D alone) to ensure Intel are recognised as setting the industry standards in compatibility and reliability. But please don't take our word for it, ask our clients. Why else would 500 systems manufacturers choose Intel? Or put our name in their brochures?

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DIVIDEND ANNOUNCEMENT	
EUROPE ASIA DYNAMIC FUND will pay out a dividend of USD 0.18 per share on February 25th, 1992.	
Shares are entitled to dividends as from February 19th, 1992.	
The dividend is payable to holders of bearer shares against presentation of coupon no 2 to the following:	
BANQUE INTERNATIONALE A LUXEMBOURG 2, Boulevard Royal, 2053 Luxembourg GRAND DUCHÉ DE LUXEMBOURG	
THE BOARD OF DIRECTORS	
EUROPE ASIA DYNAMIC FUND MANAGEMENT S.A. Société Anonyme	

INTERNATIONAL NEWS

Dual-use goods expose EC export control disparities

By Andrew Hill in Brussels



THE EUROPEAN MARKET

THE success of the single European market depends partly on how far governments are prepared to trust their Community neighbours; and nowhere will this be more important than on issues of external trade.

Concern over the quality of countries' export control systems is being brought into focus by the European Commission's plans to tear down internal barriers to the export of so-called "dual-use" goods and technologies, which can be used for civilian or strategic purposes.

The Treaty of Rome allows member states to maintain as many restrictions on the trade in weapons as they think necessary. But until now national controls have also been applied to dual-use goods and technologies, even if they are only being traded between EC member states.

Accepted international definitions of such products — which are not covered by the arms-trade treaty clause — have embraced items as diverse as personal computers, machine tools and airliners.

Movement of dual-use products within the Community may account for between 5 and 8 per cent of intra-EC trade, but neither the Commission nor industry has reliable figures. Both appreciate, however, that the administrative burden alone is

hampering free trade, not only between genuine buyers and sellers within the Community, but between project partners which have to "export" and "import" dual-use components across EC borders.

Mr Hanna Glatz, Daimler-Benz's representative in Brussels, says: "In the internal market, it will be increasingly difficult to stay national in the development and production of dual-use technologies: you'll have to enter co-operation deals and alliances across Community borders."

"As long as one of those countries is in a different export control system from another, the one subject to the tougher rules will be excluded as a partner."

Progress towards a European Commission initiative on dual-use export controls has been slow.

In 1988 the Brussels official collecting data on existing national systems was thrown out of one foreign ministry on the grounds that it was none of his business. Earlier this month, however, EC foreign ministers agreed that expert discussions should begin on the abolition of internal barriers and harmonisation of dual-use export controls, on the basis of a Commission discussion paper which identifies a number of "key elements" for any legislation.

● A common list of dual-use goods and technologies subject to controls.

● A common list of banned or restricted destinations for such exports.

● Common criteria for issuing licences from the EC.

● A forum for co-ordinating licensing and enforcement.

● Administrative co-operation between customs and licensing offices throughout the EC.

Pushing ahead, European companies would like to extend any free market in dual-use goods and technologies to Scandinavia and other members of the European Free Trade Association (EFTA). The Commission is restricting itself to solving the problems caused by EC controls for the time being, but there is a strong international dimension to its plans.

A common EC list of products would probably encompass those drawn up under existing international agreements. EC policy on exports beyond Community borders would also correspond with US thinking on export controls, which has gradually shifted from preoccupation with west-east controls to more complex concerns about restricting global proliferation of dual-use technology.

But although much of the hard work has been done in other forums, the practical difficulties which remain are enormous. The transparency of national policies — whether lists are published, for example, or even available — varies from country to country, as do the penalties for infringing the rules. Some member states levy fines of £200,000 (£11,400); some have no limit or recommend imprisoning offenders for up to seven years.



On the move: shipments of dual-use products within the Community may account for between 5 and 8 per cent of intra-EC trade

At the moment the Commission is maintaining its light touch in this sensitive area, allowing member states to debate the main political issues between themselves.

This is the strategy of informal consultation described by national officials as "a model of how to develop Community policy", but characterised slightly differently by one Brussels official: "The member states are making an effort to reach agreement between themselves, partly because they want to keep the Commission out."

The Commission may decide to step in if such discussion results in the harmonised and simplified licences for intra-EC trade suggested by some member states. Brussels fears such a move would restrict access to the internal market and actually increase

the administrative burden on EC companies.

The Commission's timetable — legislation by early autumn, implementation by the end of the year — is ambitious, possibly too ambitious according to some northern member states which doubt whether their EC partners will manage to bring their export control systems up to scratch in 11 months.

Even the Commission concedes in its paper that some member states "have less sophisticated control systems and little practical experience, up to the present, in operating controls".

If that situation does not change quickly, EC members will be reluctant to take their neighbours' efficiency on trust alone when barriers come down on January 1 1993.

China and Taiwan membership drive tests Gatt loyalties

By Frances Williams in Geneva

A GAME of Chinese chequers is being played out at the General Agreement on Tariffs and Trade (GATT) over the membership of China and Taiwan.

Negotiations on China's 1986 request to rejoin the 100-member world trade body, stalled for more than two years, finally started to move again last week when a Gatt working party began discussing a draft protocol of accession. The talks were suspended in mid-1989 after Beijing's suppression of the pro-democracy movement and a slowdown in economic reform.

The US and EC want further clarification of China's present and future trade regime before they are prepared to begin drafting membership terms — China is to answer written questions within the next few weeks. But Beijing's renewed push for Gatt entry has been supported by developing countries such as India and Mexico.

Trade officials in Geneva see a link between these developments and Taiwan's membership bid.

Taiwan applied to join in January 1990 as a "separate customs territory" — the same formula used for Hong Kong and Macao, which are already Gatt members.

Beijing has dropped its outright opposition to Taiwanese

membership but insists the island cannot join before China does. Washington, which is lobbying for Taipei's Gatt application to be admitted, says there can be no link between the two sets of negotiations.

Taiwan's candidacy is supported by Gatt's industrialised members. But developing nations have been reluctant to give their backing without Beijing's sanction.

The most likely outcome of behind-the-scenes discussions now under way in Gatt is an understanding with Beijing that, while there can be no formal linkage, negotiations on Chinese membership will be intensified. If all goes according to plan, Gatt's governing council will decide next month to establish a working party on Taiwan's membership application.

Since Taiwan is a market economy that has already taken steps to liberalise trade, drafting its accession protocol, which will be completed within a year. This scarcely looks feasible for China, which will need special rules written into its terms of entry to take account of its planned economy.

The next meeting of the China working party is likely to be held this spring.

Brittan to step up calls for Japanese market access

SIR Leon Brittan, the EC competition and financial services commissioner, will today renew pressure on Japan to provide genuine equal access to its markets for EC financial institutions, when he addresses the Japanese Financial Services Institute in Tokyo, writes Andrew Hill in Brussels.

During his five-day visit to Japan, Sir Leon is also expected to criticise the international drift towards bilateral trade agreements, such as that between Tokyo and the US.

Since Sir Leon's last visit to Japan a year ago, the Community has issued a joint declaration

with Japan which called for "equitable access" to both markets and set up a framework for regular high-level political contacts.

The EC and Japan also reached agreement on plans to open the Community market fully to Japanese car imports by 1993.

Sir Leon is expected to praise progress made by Tokyo in removing obstacles to foreign companies and enforcing competition powers. But in meetings with politicians and business leaders he will stress the need for Japan to continue the process.

CONTRACTS & TENDERS

MANCHESTER AIRPORT
TERMINAL TWO
FINANCIAL SERVICES CONCESSION
INVITATION TO TENDER

Manchester Airport Plc, Europe's fastest growing major Airport invites interested parties to apply for the tender documents for the operation of Bureau de Change and Banking facilities in Terminal 2.

Terminal 2, currently under construction, is programmed to open in two phases. Phase 1 in March 1993 will increase Airport capacity by 6 million passengers per annum and Phase 2 in 1994/95 adds a further 6 million passengers per annum, taking total Airport capacity to 24 million passengers per annum.

Proposals are invited for the provision and operation of three Bureau de Change, Banking Facilities and ATM's in the following locations:

- Public Concourse - Landside
- International Departures Lounge - Airside
- Arrivals Hall - Landside

Companies wishing to be considered for inclusion on the select list should apply as detailed providing the following information:

- (1) Copies of the last two years audited accounts.
- (2) Company brochure or profile
- (3) Names and addresses of two referees
- (4) Bankers names and addresses.

Applications should be made to the Administration Manager, Manchester Airport Plc, Manchester, M22 5PA, England, and must be received no later than Friday 6th March 1992. Please quote Reference Number P19.

LEGAL NOTICES

Receivables Liquidation plc
Company no 1077864
Nature of business: Receivables Company
Trade classification: 57

Qualitas Properties Limited
Company no 1406827
Nature of business: Property Investment
Company
Trade classification: 59

Light 'N' Heavy (Consumer Products) Limited
Company no 1078888
Nature of business: Supply and Distribution
Trade classification: 52

Date of appointment of joint administrative receivers: 11 February 1992 (for all above companies)

Name of person appointing the joint administrative receivers: National Westminster Bank plc, in accordance with the provisions of two debentures dated 18 July 1991, and one debenture dated 18 December 1989 respectively

C. J. Hughes and Y. R. Harris
Joint Administrative Receivers
(Office holder nos 141 and 2129) of
Cock Quay
Shelley House
3 Hulse Street
London EC2V 7JQ

NOTICE OF ADMINISTRATION ORDER
THE INSOLVENCY ACT 1986
IN THE MATTER OF
NATURAL FIBRE & PAPER LTD
"MANAGEMENT LIQUIDATION"

Nature of Business:
Wholesale Management & Furniture Distribution
Administrative order made:
10th February 1992

Joint Administrators:
Peter S Dunn, FCA
Lillian Choudhury & Davis
40 Conduit Street
London W1B 5PS

ART GALLERIES
MANCHESTER: 6 Alderman Street, London W1, CHRISTOPHER SHAWMAN 29 January 1992. 10-12.30. Tel: 01-479 1011.

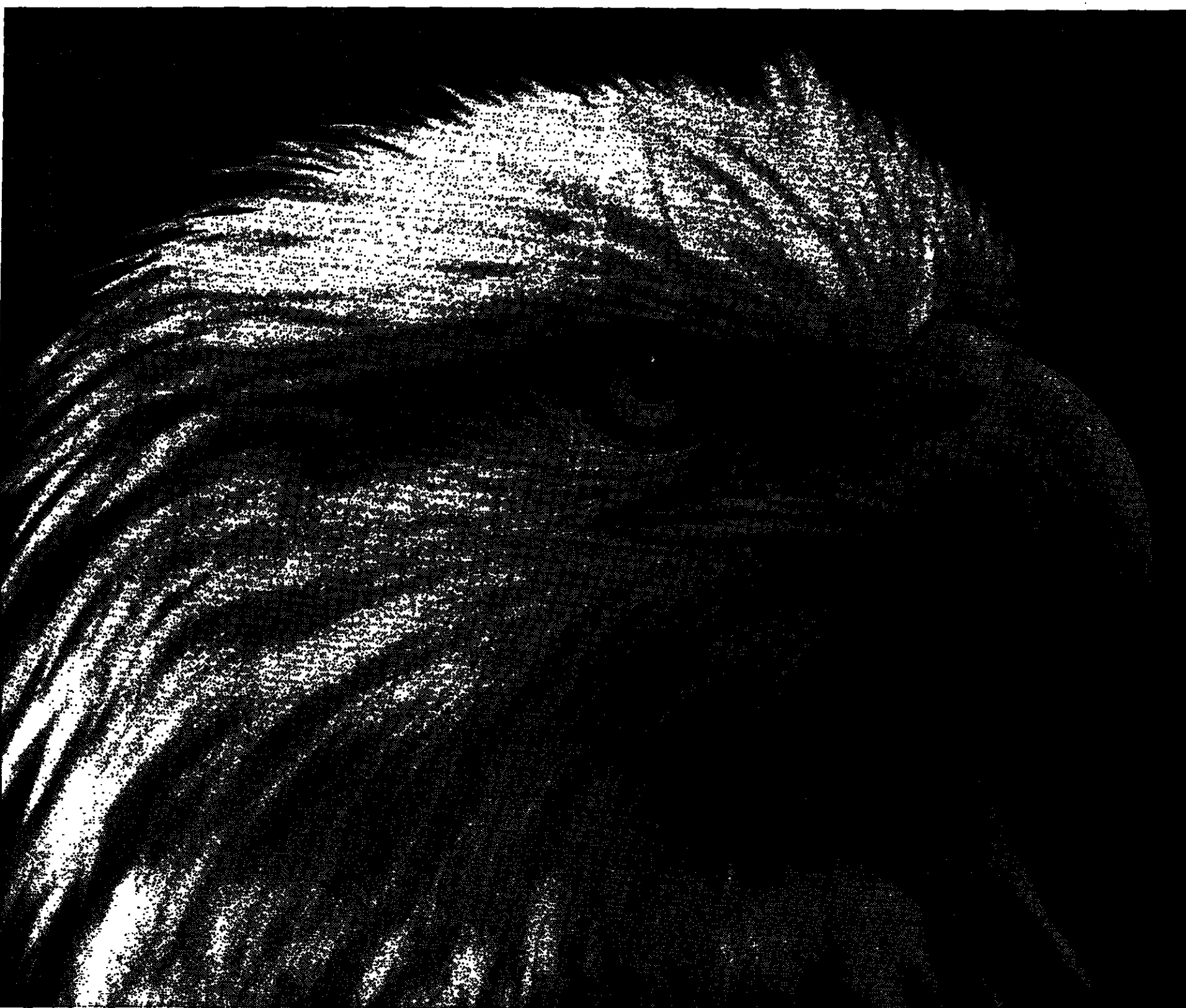
REPORTS CLUB LIMITED
(IN ADMINISTRATIVE RECEIVERSHIP)
We, David Wood and Peter Dunn of Latham Choudhury & Davis, Arbitrators, Partnership, London, E.C.4, hereby give notice that on the 6th day of February 1992, we were appointed Joint Administrative Receivers of the above-named company by Samuel Webster & Wilson Limited, under the terms of a debenture dated 6th July 1989, giving the holders a fixed and floating charge over the whole of the assets of the company.

The company trades as Club proprietors. Dated this 6th day of February 1992.
David A. T. Wood and Peter S. Dunn
Joint Administrative Receivers
(Office holder nos: 000882 and 000883)

PULLHEAD LEISURE LIMITED
(IN ADMINISTRATIVE RECEIVERSHIP)
We, David Wood and Peter Dunn of Latham Choudhury & Davis, Arbitrators, Partnership, London, E.C.4, hereby give notice that on the 6th day of February 1992, we were appointed Joint Administrative Receivers of the above-named company by Samuel Webster & Wilson Limited, under the terms of a debenture dated 6th July 1989, giving the holders a fixed and floating charge over the whole of the assets of the company.

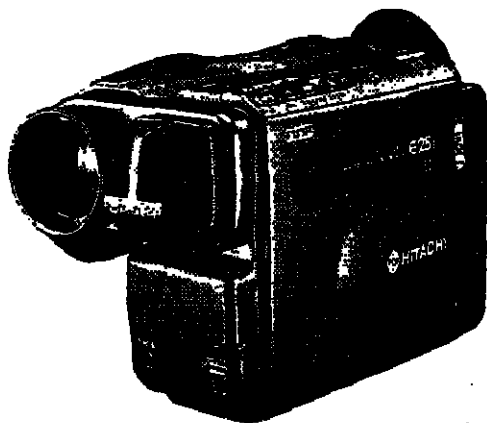
The company trades as Club proprietors. Dated this 6th day of February 1992.
David A. T. Wood and Peter S. Dunn
Joint Administrative Receivers
(Office holder nos: 000882 and 000883)

ROYAL S.S. HOUSE OF APPOINTMENT OF ALFRED ELECTRONIC SERVICES LIMITED
Registered No: 140000
Nature of Business: 57
Name and Address of Joint Administrators:
Latham Choudhury & Davis
40 Conduit Street
London W1B 5PS
Date of Appointment: 10th February 1992
By whom Appointed: National Westminster Bank plc
Name and Nature of Charge: Mortgage debenture underpinning fixed and floating charges dated 18th September 1990
Latham Choudhury & Davis
40 Conduit Street
London W1B 5PS

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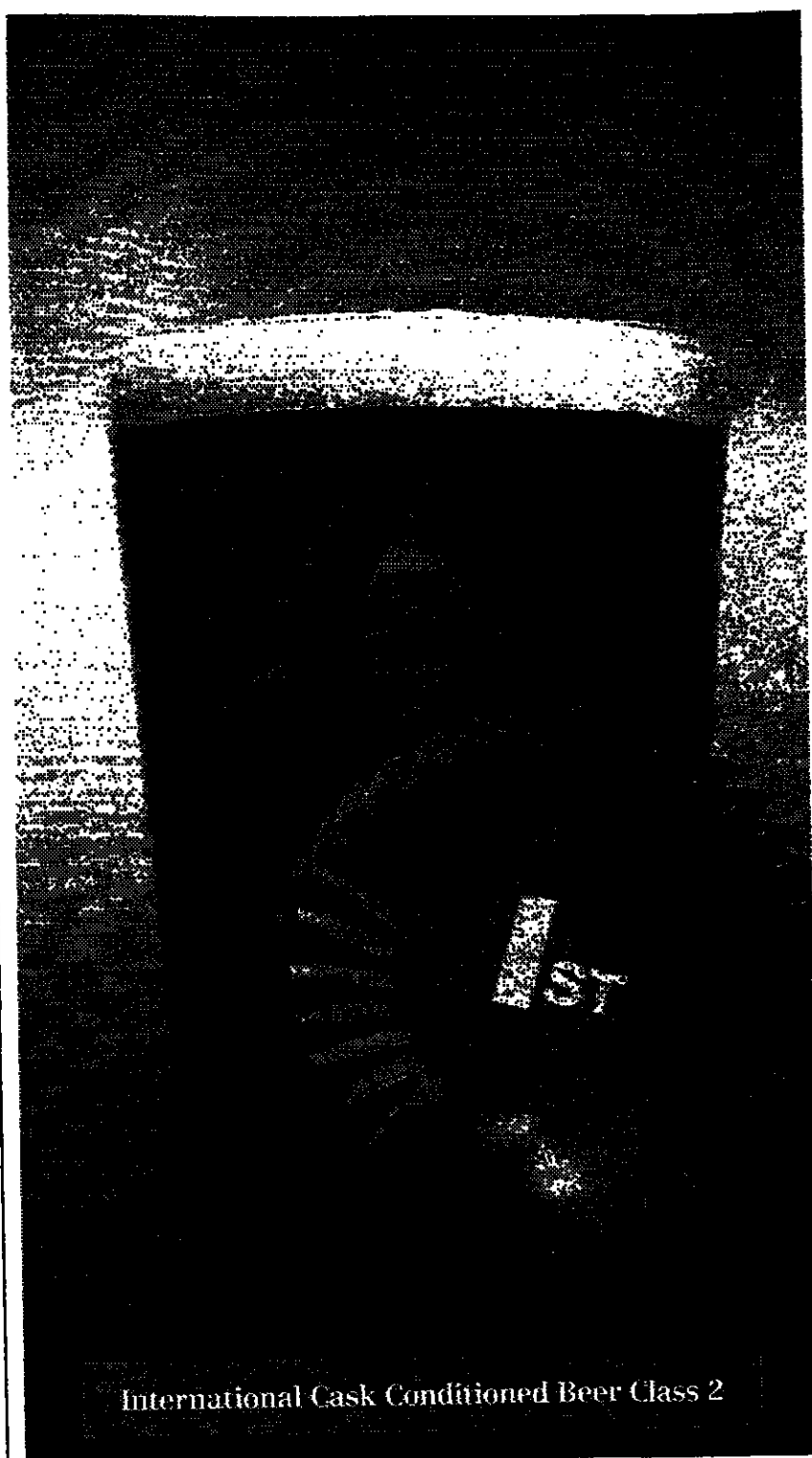


HITACHI

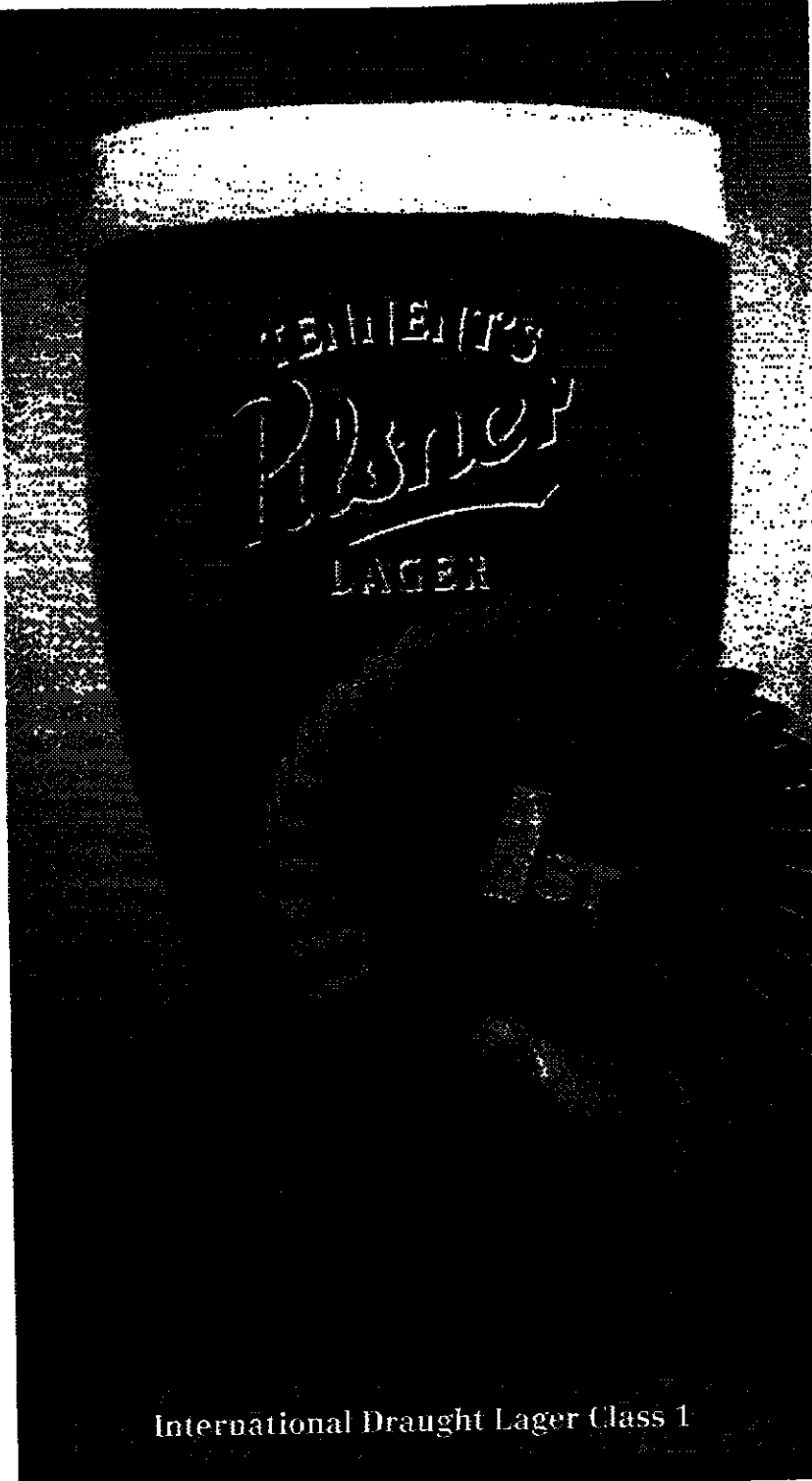
That's the kind of imaginative thinking you expect from Hitachi. Our research team explores the ability of AI technology to transform consumer electronics, industrial equipment, medical and scientific devices, and information processing. Designing innovations of vision.

At Hitachi, we make technology in the human interest to help you see the world through new eyes.

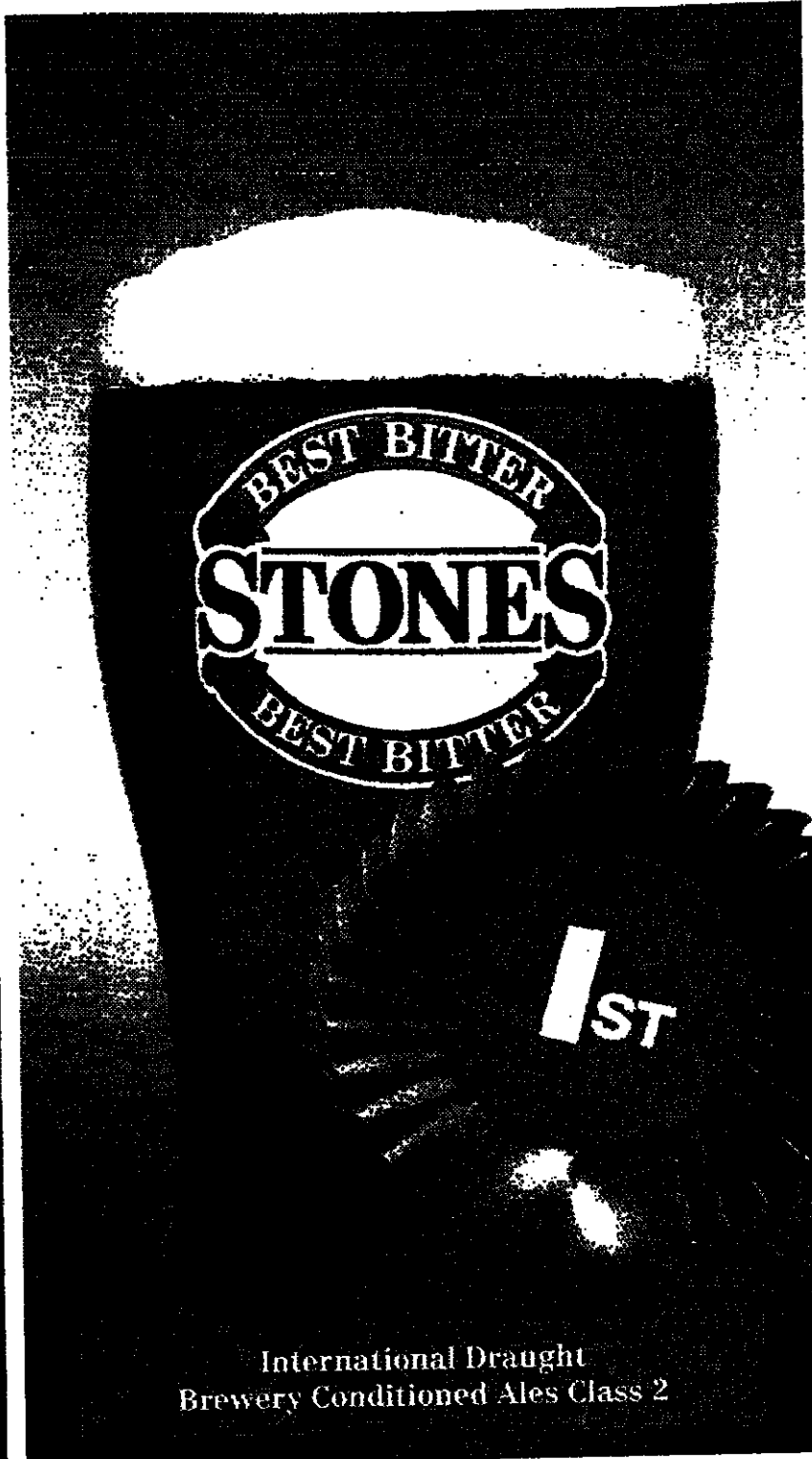
Beauty is in the eye of the beholder. Now, the artificial intelligence (AI) of Hitachi VM-E25E expands natural powers of perception.



International Cask Conditioned Beer Class 2

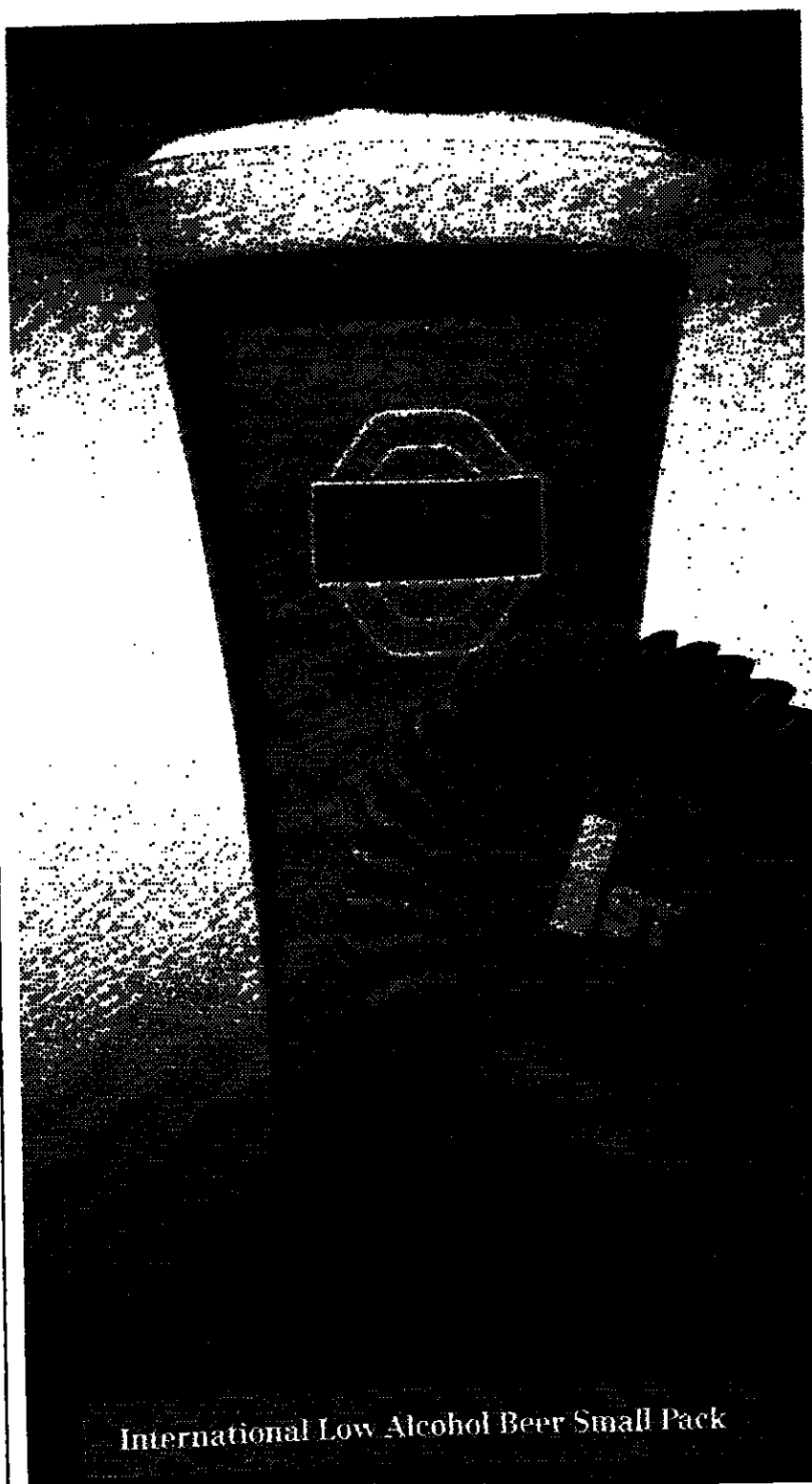


International Draught Lager Class 1

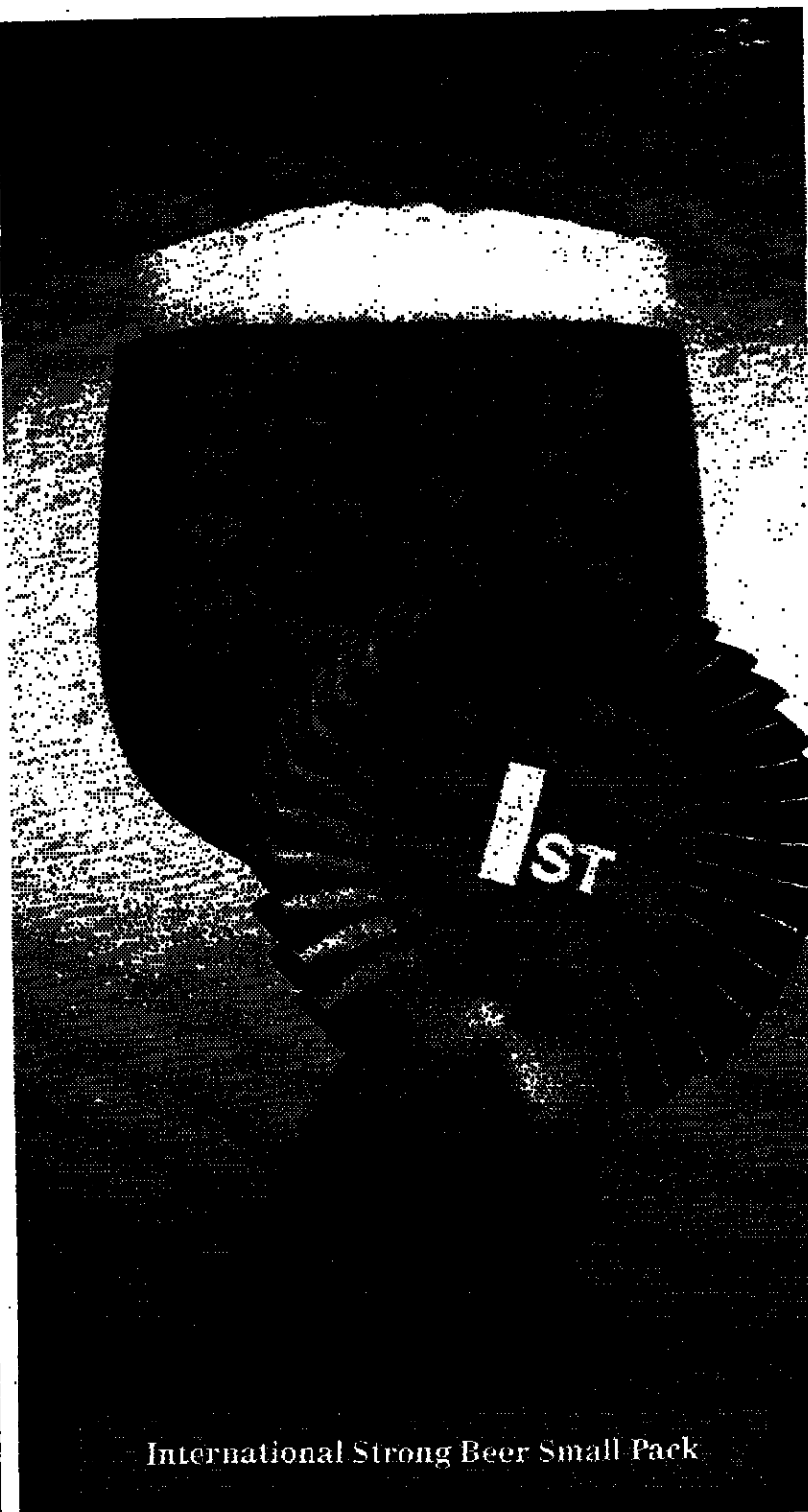


International Draught Brewery Conditioned Ales Class 2

Following yet more awards, guess what we'll be organising again in our brewery?



International Low Alcohol Beer Small Pack



International Strong Beer Small Pack

That's right, another small celebration. At the 1992 Brewing Industry International Awards, following the recent success of Tennent's Pilsner, Draught Bass and Stones Best Bitter, we're pleased to announce that Tennent's Super and Tennent's LA have picked up first prizes in their respective categories.

In other categories, Tennent's Extra, Allbright Bitter and Carling Black Label picked up two second prizes and one third prize.

In all, over 700 beers from 37 countries were judged by an international panel of experts.

Their verdict gives testimony to Bass's belief in traditional brewing values and professional expertise.

And our belief that, in a brewery, you have to organise things properly.

Bass Brewers

UK NEWS

CBI SURVEY

Retailers report rise in January sales

By Peter Marsh, Economics Staff

BRITAIN'S shops reported an unexpected rise in sales volumes last month compared with a year ago, according to a survey of the distributive trades published today by the Confederation of British Industry.

Although the report provides some evidence of greater confidence by consumers, the impact of the sales increase may be diluted by the sharp price cuts many retailers have introduced to combat the recession.

While confidence about sales volumes expressed by the whole of the distributive industry is considerably higher than a month ago, orders placed by distribution companies with suppliers remain fractionally down on last year, indicating that the sector remains depressed.

Even so, the study is likely to be seized on by government ministers to support indications that the economy may pick up in the few months before the election.

Mr Norman Lamont, the chancellor of the exchequer, is under pressure from cabinet colleagues to stimulate growth, possibly by a cut in interest rates ahead of the Budget on March 10.

Government figures due this week are thought likely to support the tone of the CBI study, and show that retail sales volumes showed a small increase last month on December's depressed levels. Other statistics are expected to indicate that the recession has so far lasted for six quarters - making it the longest since the second world war.

The CBI study covered 15,000 trade outlets in the distributive industry - retailers, wholesalers and car dealers. Clothing and shoe shops - which marked down prices drastically in January in an effort to boost volumes at the expense of profits - saw a "sharp turnaround" in sales last month compared with a year before.

But the CBI said sales of alcoholic drinks were well below 1991 levels, while retailers of electrical household goods saw modest increases.

In January, 45 per cent of the 283 retailers in the survey said sales were up on a year ago, and 24 per cent reported a decrease.

That gave a balance of 21 per cent which saw an increase, compared with a balance of 6 per cent in December which reported a drop in sales.

Toshiba opens new UK factory

By Andrew Baxter

TOSHIBA has opened the first Japanese-owned factory for air conditioning units in the UK as part of plans to expand its presence in the relatively untapped European market.

A former Toshiba microwave plant in Plymouth, south west England, converted and extended at a cost of £10m, was opened on Friday.

The plant is likely to intensify competition in the UK market for commercial air conditioning, where sales have fallen about 25 per cent over the past year because of the recession in the construction industry and retailing.

The move could also increase Japanese dominance of the market for small and medium-sized air conditioning, where five Japanese companies including Toshiba have captured 60-80 per cent of the market over the past 20 years.

Employment at the Plymouth plant is expected to rise from the current 120 to 220 when full production is reached early next year. The plant will then be capable of producing 25,000 units a year of various sizes, worth around £30m-£40m. About half of production will be exported.

Toshiba wants to secure its position ahead of the European Single Market reforms.

BR to end policy of seniority promotion

By David Goodhart, Labour Editor

BRITISH Rail will from next month promote station staff on merit rather than length of service.

The policy of promotion on seniority alone was considered a major step forward by rail unions when they forced the private railway companies to concede the principle at the beginning of the century.

In those days there was a lot of nepotism and favouritism on the railways with managers picking their "blue-eyed boys" regardless of merit," says Mr Leslie Harries of the transport union RMT.

The union says it is no longer opposed to the principle of suitability as opposed to seniority in selecting job candidates and has already conceded this point for most other rail jobs.

But some reservations remain about giving management complete discretion. The introduction of an unpopular system of promotion assessment was one of the causes of the 1985 London Underground strike led by the transport union.

Also, the union argues that because of the non-transferability of many rail skills, such as train driving, long-serving staff should be compensated for their limited options outside the rail industry by preference for promotion within it.

The union favoured compromise, which already applies to

train drivers and will probably now apply to station staff, is that seniority should determine the order of applicants for promotion even if suitability will remain the final test of whether someone gets the job or not.

The abandonment of seniority as the sole determinant of promotion for station staff is being introduced as part of a restructuring of the four non-management grades, from ticket collector to station supervisor, which has finally been agreed after 10 years of negotiation.

Similar shake-ups are being introduced for other groups of rail workers, most of them driven by a desire to reduce what British Rail describes as "embarrassing" overtime levels - nearly one-quarter of all hours worked.

Almost 90 per cent of signals staff have agreed a package which makes Saturday and Sunday a normal working day, despite opposition from RMT. Agreements have also been reached with cleaners and track supervisors.

However senior conductors have narrowly rejected a package which includes performance related pay and train drivers are also objecting to proposals for more flexible working and performance pay despite a 28 per cent increase in basic pay and a move to salary status.

BRITAIN IN BRIEF



Hitachi and Hoover sign marketing deal

Hoover is to sell washing machines in the UK for the first time under the name of Hitachi. This is the first step into the white goods market for Hitachi and will cause tremors in an industry which has considerable over-supply and falling demand.

In an allied move Hoover is to reorganise production in Britain and is to close its distribution depot in Bolton, north England, with the loss of about 250 jobs. It will concentrate distribution at its new £14m centre in Merthyr Tydfil, Wales opened last autumn.

Clothing sales decline

Most clothing retailers are currently making little or no profit in the cut-throat UK market, which has registered its third consecutive year of sales decline in real terms, according to a report by Verdict, the retail consultancy. Total sales rose by 0.7 per cent in 1991 to £17.5bn but fell by 1.2 per cent after inflation had been stripped out.

Week-end demand has been exacerbated by rising costs, widespread discounting and the overcapacity of the sector. Verdict estimates that clothing sales have grown by 25 per cent since 1989 but says many big multiple retailers, such as the H&M Group, Next and Sainsbury, have been heavily cutting back their outlets.

Specialist clothing retailers sales fell faster than the market average with mail order companies and market stalls recording the steepest of recent years and recovering market share.

Pay settlements are below 5%

Most pay settlements in January have dropped below the "psychological barrier" of the five per cent level making it unlikely that rising real incomes will help end the recession, according to the latest report of the pay analysts Income Data Services.

IDIS's findings, for the whole economy tally with the latest manufacturing pay estimates produced by the Confederation of British Industry and the Engineering Employers' Federation. The CBI says that average settlements in the final quarter of last year dipped to 4.1 per cent from 4.5 per cent in the third quarter.

In December, the settlement average was 4 per cent.

Japanese banks lead in London

Japanese banks have overtaken US banks as the most numerous foreign banking

community in London, according to an annual survey of foreign bank offices in the City.

Noel Alexander Associates reports that at the end of 1991 there were 49 US banks in London compared to 54 Japanese banks.

The number of American banks in London has been declining steadily since 1982. In that year, there were 77 American banks in the city.

Their decision to pull out of London seems to have been prompted mainly by the problems of the banking sector in the US rather than by a decline in London's importance as a financial centre.

Research income climbs

Research and contract income generated by British universities is growing at more than £100m a year, but their staff-to-student ratio is worsening, according to figures published today by the Universities Statistical Service.

Between 1989-90 and 1990-91 universities' total income from research contracts and grants grew by 20 per cent from £252m to £302m.

Of that sum, income from overseas organisations - including the European Community - increased by one third, with funds from research councils rising 20 per cent and those from UK-based charitable bodies increasing 18 per cent.

Over the same year, universities' total revenue grew by 14 per cent, from £2,415m to £2,759m. Almost half came from direct government grants, with 14 per cent from student fees and support grants, 7 per cent from research councils and a similar proportion from residences and catering.

Small business confidence falls

Fewer small and medium sized companies are optimistic about commercial prospects than three months ago, according to a survey by the Investment Survey.

The study supports indications that business confidence has fallen recently, although it says the ingredients for a recovery are in place.

According to the survey of 1,000 companies in which 81 has a financial stake, 45 per cent expect sales to turn up over the next three months. In the last survey in the autumn the proportion was 49 per cent. Only 22 per cent of companies expect to invest more in the coming three months.

Royal Mail wins approval

More consumers are satisfied with Royal Mail's postal services than with any other public utility, according to an RMT survey.

The survey, based on a sample of 2,000 people, found that 79 per cent were satisfied with Post Office mail services and 75 per cent with courier services.

The least popular utilities were BT, which recorded a customer satisfaction score of 60 per cent, and public transport, which recorded only 39 per cent. The National Health Service was rated satisfactory by 69 per cent of respondents and local education by 68 per cent. Forty eight per cent said they were satisfied with their local authority and only 35 per cent with central government.

Privatization of Lloyd Aereo Boliviano S.A.M.

- Interested Potential Bidders -

The Government of Bolivia has appointed The First Boston Corporation as its financial advisor in the sale of LAB to a private consortium. The Government requests that interested parties immediately contact one of the individuals designated below prior to February 21, 1992 in order to be considered for receiving an information package on the company.

The First Boston Corporation
Park Avenue Plaza
55 East 52nd Street
New York, NY 10055
U.S.A.

Attention:

Mr. Matty Vengerik
Vice President
Tel: (212) 909-4097
Fax: (212) 355-3872

Mr. Jeffrey P. Kelly
Vice President
Tel: (212) 909-2602
Fax: (212) 593-3179

Voice, text, video, data, France Telecom masterminds all telecommunications for the 1992 Olympic Winter Games.

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These are just a few of the impressive means France Telecom is setting up to make sure the world media present at Albertville can deliver optimum reporting to its home audiences. On this occasion, France Telecom will demonstrate its expertise in all aspects of telecommunications and its tremendous coordination abilities.

Behind all the impressive figures, however, there is a simple fact: France Telecom's unsurpassed competence can be made to work for you and your business, with practical, accessible, affordable, customized solutions which will bring the world closer to you.

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Bending minds to a new learning circle

Christopher Lorenz unravels the latest business fashion



Peter Senge: one of a growing cohort of evangelists for the concept of "The Learning Organisation"

Peter Senge looks and sounds rather like a younger, slimmer and more respectable version of Jimmy Swaggart, the American revivalist preacher. He is one of the most charismatic speakers around.

Yet Senge, a star professor at the Massachusetts Institute of Technology who also has a consultancy business with a list of blue chip clients, disparages charisma in the business world.

Most of the outstanding leaders he knows do not stand out in a crowd, he says: they are often mediocre public speakers who fail to mesmerise audiences with either brilliance or eloquence.

Instead, what distinguishes them is the clarity and persuasiveness of their ideas, the depth of their commitment to their companies, and — above all — their openness to continually learning more, both individually and in partnership with everyone around and below them.

Senge (pronounced Sengé) is one of a growing cohort of evangelists for the concept of "The Learning Organisation". Though its intellectual roots are heavily European, and reach back into the 1940s, it shows every sign of becoming the next American-spawned management fashion after "total quality", time-based competition, and "change management".

The notion is potentially extremely powerful, although its ambitious nature increases the chance that, like most management fads, companies will rush to adopt it in a half-baked way.

It rests on the argument that, in an age when quality, technology and variety are all becoming widely available at relatively low cost, the only sustainable competitive advantage that a company can create may be the ability to learn faster than its rivals and to anticipate changes in the business environment.

The concept has various degrees of depth and breadth, simplicity and complexity, according to which pundit one follows.

In essence, a "learning organisation" is considered to be one which encourages continuous learning and knowledge generation at all levels; has processes which can move knowledge around the organisation easily to where it is needed; and can translate that knowledge quickly into changes in the way the organisation acts, both internally and externally.

As Senge puts it, such an organisation is one "that is continually expanding its capacity to create its future". Hence his view, in common with many other academics and consultants, that good 1990s leadership has less to do with the 1980s muscular virtues of intuitive charisma and visionary strategy than with the quieter ones of what he calls "organisational design, stewardship and teaching".

To Senge, model "learning organisations" include Hanover Insurance, a New England company, Herman

Miller, the mid-west furniture maker, and Analog Devices, a Massachusetts microchip manufacturer. In many respects, he also admires the way Shell, the European oil giant, manages its learning process.

Senge's prescription of what it takes to build and sustain such a paradigm is contained in a book called "The Fifth Discipline — The Art and Practice of The Learning Organisation". It was one of 1991's best-selling business books in the US and has just been published in Europe.

To Senge, five interrelated disciplines need to be fostered among individuals and groups in an organisation if it is to reach the heights of Hanover Insurance and the others:

SYSTEMS THINKING Though he deals with this first in the book, and in by far the greatest depth — he is, after all, a professor of systems thinking — he actually calls this the "fifth discipline".

As Senge says, individuals and organisations in all walks of life tend

to focus only on one or two obvious parts of a problem, rather than on its entire "system". Hence their tendency to choose simple explanations and "solutions".

Systems thinking, on the other hand, draws from a century of theory and practice to provide a set of techniques which help people to "see the whole": to perceive the inter-relationships or "structures" that underlie complex situations.

Systems thinking also detects patterns of change over time, so that people can cease taking what Senge calls "snapshots", and come to see that cause and effect are seldom close in time. Systems thinking also helps people realise that the most obvious solutions usually fail to work: a perfect example is Britain's 1976 rent control legislation, which simply dried up the supply of private rented accommodation.

Senge illustrates the effect of systems thinking — and the lack of it — very effectively through several examples, from the arms race and

environmental pollution to a business simulation game played at MIT.

This demonstrates the disastrous effects that can be experienced by the various links in a brewing production, distribution and retailing chain (or "system") when each link makes entirely independent decisions on levels of ordering and supply, without any knowledge or understanding of what decisions are being taken by other links. Optimising sub-systems in this way works only when demand is stable. When it rises or falls, the knock-on effect on the entire system is panic, crisis and chaos.

One of the other keys to systems thinking, Senge suggests, is the ability to recognise structures that occur repeatedly. He provides nine detailed examples of "systems archetypes", or "generic structures", that occur time and again in private and organisational life.

PERSONAL MASTERY. A ghostly term, this translates as "personal growth and learning".

Among other points under this heading, Senge stresses the importance of intuition to systems thinking; denies that change only occurs in the face of crisis; and warns of the dangers of "empowering" people before they have learned at least some of the other disciplines.

MENTAL MODELS

These are deeply engrained, often subconscious, assumptions which affect what we think about people, situations and organisations, often creating contradictions between what we say and do.

Senge suggests that a General Motors' belief that cars are basically about styling, rather than performance, has impeded any real cultural and strategic change at the car giant. And he makes much of Shell's use of scenario planning since the 1970s to challenge its managers' comfortable assumptions about how the company and the oil world worked.

With the help of one of Senge's mentors, the widely influential Chris Argyris of Harvard, Hanover Insurance has used the concept of mental models as a key part of its process of organisational learning.

SHARED VISION

This must not, as it is so often, be imposed, since it will at best command compliance — not commitment. That will actually discourage people in the organisation from learning — as may charismatic leadership by a very strong individual.

TEAM LEARNING

Some theorists argue that learning can be done only by individuals, not by teams — nor organisations, for that matter. Senge dissents.

Borrowing from Argyris, he outlines various "defensive routines" which impede learning within teams, and can "reduce to 63 the collective IQ of a team of managers with individual IQs above 120".

All five disciplines are obviously powerful in themselves, let alone in combination. But Senge's claim that they are all integrated by the fifth, systems thinking, is arguable. Surprisingly for a professor of this subject, his book does not actually contain a model of how an organisation learns; instead, it is full of helpful systems thinking models.

Senge also draws inadequately on the wealth of post-European research into systems thinking and learning organisations: his is a very American approach, yet it also omits at least one of the keys to Argyris' work: a much-quoted concept known as "double loop learning".

All the same, Senge has accomplished the praiseworthy task of popularising both systems thinking and "the learning organisation" for the wider business public. Characteristically, he does so on the page, almost as much as in person, in charismatic fashion.

Century Business 120/Doubleday \$25

How to make your mark in Germany

A cross-border deal loomed: the Americans were flying in. But Volkert Klauke, head of corporate finance at the Price Waterhouse accountancy firm in Germany, was worried about letting his American colleagues loose in Frankfurt without an elementary briefing on the differences between Anglo-American and German corporate culture.

Klauke, who joined PW last year after 10 years with Deutsche Bank in New York, met the American team at the airport. Before they were allowed to meet the client — or leave the airport — he gave them a lecture on how to succeed with German businessmen.

Here are Klauke's observations and some practical do's and don'ts:

"The importance of people is expressed in terms of their limited availability"

● The adage that time equals money is taken more seriously in Germany than elsewhere: time is valuable and is rationed out extremely carefully. The more important the businessman, the more difficult it will be to gain access to his time. As Klauke puts it: "The importance of people is expressed in terms of their limited availability".

Diaries are plotted out months in advance. In some big German companies, board directors do not see each other without making an appointment first.

It follows that being late for a meeting is more than an inconsideration: it is an insult. And it means that off-the-cuff meetings are out of the question: you cannot ring up and say: "Hi, I'm in town. How about a chat?" Klauke says it is far better to write with a request weeks, if not months in advance. Do not try to change a schedule at short notice.

● Germans observe a strictly linear approach to problem solving, says Klauke. They will seize upon one problem and work on it step by step until it is solved, rather than tinkering with a dozen problems at once and advancing them all at the same time. "Never give a German a whole lot of problems to solve at once," says Klauke.

● German businessmen are

highly sensitive to infringement of their personal space. "Space is at a premium here because there isn't much of it," observes Klauke. Open plan offices are rare and German executives fence themselves in from each other behind solid, shut doors. Do not burst into an office, and once in there "don't grab a chair and sit down wherever you feel like. Don't slouch over a chair and don't try and rearrange the furniture," Klauke cautions.

● Personal relationships are the basis on which business is done in Germany, but they are exceedingly difficult to forge. Klauke says that it would be unlikely that an employee of a German company would be invited to a colleague's home and don't:

● The adage that time equals money is taken more seriously in Germany than elsewhere: time is valuable and is rationed out extremely carefully. The more important the businessman, the more difficult it will be to gain access to his time. As Klauke puts it: "The importance of people is expressed in terms of their limited availability".

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David Waller

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Research income climb

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Whatever the terrain, whatever the challenge, NYK keeps its promise of on-time delivery through door-to-door service. Truck, train, air, sea, rail and air transport networks.

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Everybody knows KLM, Royal Dutch Airlines, as 'The reliable airline'. But did you also know that they are Europe's oldest? That means they must have learned a thing or two about professionalism, efficiency and service. That's why they chose Dubai as the hub of their operations for the Middle East.

KLM have been flying in and out of Dubai for nearly two decades. They've been satisfied and impressed with the level of service they've received for their aircraft and for their passengers. And, of course, over the years, both KLM and Dubai International Airport have always striven to pass these benefits on to their customers. In fact, KLM were so impressed by Dubai and its advantages that they named a new 747-400 'The City of Dubai'. You can't say fairer than that.

Leisure facilities in Dubai are plentiful and the climate is ideal for water sports of every kind.

No wonder, because Dubai has a lot to offer. It's not only a leading commercial centre in the Middle East, it is also unrivalled as a base for doing business in the prosperous and growing markets of one of the world's most rapidly developing regions.

So, instead of wondering where to locate your business, take advice from KLM and decide... decide on Dubai.

Decide on Dubai

For more information on Dubai, please contact: Dubai Commerce and Tourism Promotion Board, P.O. Box 594, Dubai, U.A.E. Tel: (971-4) 511100. Fax: (971-4) 511711. Telex: 46182 DCTPB EM.

North America: 8 Penn Center, Philadelphia, PA 19103. Tel: (215) 751-9750. Fax: (215) 751-9751.

UK & Ireland: 34 Buckingham Palace Rd, London SW1W 0RE. Tel: (071) 828-5961. Fax: (071) 828-4891.

France: 19 rue de la Trémoille, 75008 Paris. Tel: (01) 4730-7615. Fax: (01) 4723-3606.

Germany: Neuge-Mainzer Str. 57, 4000 Frankfurt M. 1. Tel: (49) 234-22. Fax: (49) 233151.

Italy: 2 Piazza Portici, 20122 Milan. Tel: (02) 7202-2466. Fax: (02) 7202-0162.

Far East: 25th Floor, Tower 1, Admiralty Centre, Harcourt Rd, Hong Kong. Tel: 537-6985. Fax: 561-2495.

Japan: Akasaka Mimi Bldg, 1-7-3 Akasaka, Minato-ku, Tokyo 107. Tel: (03) 5562-4911. Fax: (03) 5562-4922.

KLM were so impressed with all that Dubai has to offer, they named a brand new 747-400 after her.



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Community housing scheme

HUNT THOMPSON ASSOCIATES (HTA) has been appointed as community architects by the Waltham Forest Housing Action Trust for the redevelopment of three 1960s high rise estates. The three estates are Cathall Road, Leytonstone, Oliver Close, Leyton, and Chingford Hall, Chingford.

Under the proposals most of the 2,100 high rise flats will be demolished in phases and their occupants will work with the architects on the design of the new two or three-storey homes which will be built to house them. The appointment of HTA covers the preparation of a masterplan for the redevelopment of each of the estates.

Scottish hospital

CEMENTATION PILING & FOUNDATIONS has won an extension to its £818,000 contract for the Health Care International private hospital on Clydebank, Scotland. The initial 19-week programme for driving the 1,500 piles involved was awarded in August but has been extended to enable the driving of 400 precast piles for an adjoining hotel.

Bristol foul water distribution plan

BALFOUR BEATTY CIVIL ENGINEERING has been awarded road, water and energy contracts totalling over £12m.

Phase II of the Bristol northern foul water interception contract, valued at \$8m, has been let by the City of Bristol, agency for Wessex Water.

The work is to be carried out under a 130-week target cost contract and comprises 3.1 km of tunnels to carry the combined flows from the east and central areas of the City of Bristol to the main trunk sewer in the Avon Gorge.

Three different sizes of tunnel will be constructed through the sandstones and mudstones underlying Bristol, using road-header type excavation machines mounted inside tunnel shields.

Work is also about to commence on the Avon Ring Road Stage 1B (II) contract for the County of Avon. The £3.04m scheme is due to be completed by spring 1993.

The contract comprises the construction of two kilometre wide 7.3 metre dual carriage-way, commencing at the junction of Western Road with Avon Ring Road Stage 1B(II).

Other contracts include the construction of gabion walls for a quarry at Kendal in the Lake District for Tarmac Concrete (240,000); and a car park and car wash for the Queens Park Hospital at Blackburn (£234,000).

The contract housing division has won a £12m order for repairs to homes for Blairtum Housing Association in Strathclyde and a £870,000 contract for the removal of balconies on housing blocks for Clydebank District Council.

well for the Borough Council (£518,000). A swimming pool at a leisure park is to be refurbished and repaired for Gillingham Borough Council in Kent (£509,000).

Since 1989 the company has been awarded eight contracts for the construction of infrastructure and buildings at the park by the developer Arlington Property Developments.

Tarmac Structural Repairs has won two contracts worth more than £500,000 each.

Repairs are to be carried out to all columns and cross beams including cathodic protection to a bridge taking the A404 across the Tame Canal at Sand-

machines mounted inside tunnel shields.

"One pass" smooth bore precast concrete segments 3.35 metres, 2.44 metres and 1.83 metres in diameter will be used to line the tunnels. Sixteen shafts varying in size from 3.66 metres to 7.63 metres in diameter and at depths up to 23 metres deep are also required.

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Residential conference facility



A.F. BUDGE (BUILDING) has been awarded a contract in Leeds for the refurbishment and conversion (pictured) of the Grade II listed Westwood Hall, Otley Road, Leeds into a residential conference centre.

Set in nine acres of mature parkland, the development is due for completion in spring 1993, and will be finished to high standards both internally and externally.

The centre will provide residential accommodation, conference and lecture rooms, banqueting suites and catering facilities for up to 150 guests.

Having originally acquired the Hall in 1919 for student accommodation, the University of Leeds is now taking advantage of the growing demand for conference facilities.

In a contract, worth about £500,000, Budge will construct a three-storey stone faced extension with pitched roof and hardwood windows.

The Hall, parts of which date back to 1825, will also be extensively refurbished. This includes restoration of the external stonework, listed decorative ceilings and wood paneling.

The second contract, at Queen Elizabeth Dock, is an extension to the quayside road to enable development to the east. The £300,000 contract is being undertaken for Associated Builders' Federation.

Following the completion of a £25m design and build contract for a European Research Centre at Riddington Fields, Nottingham, for Ranson, Hoffman and Pollard, Mowlem Northern's east Midlands division, based at Nottingham, has begun work on another design

and build contract at this business park.

A two-storey office building, providing 30,000 sq ft at the entrance to the park, will form the new headquarters of a major government department.

The Nottingham office has also won a £1.2m contract from the Derwent Housing Association to build a 38 bed trail and elderly sheltered housing unit at Sweeney Way, Toton.

The Leeds office is engaged on a £1.2m sheltered housing scheme in Meanwood for the Anchor Housing Association.

Hong Kong Airport development project

Hong Kong's Provisional Airport Authority (PAA) has awarded **INGERSOLL-RAND** an order for six large DM-302 drilling rigs with a list value of around US\$5m (£2.8m) to be used in the site formation contract for the Chek Lap Kok Airport.

The drills will produce holes for blasting rock from Chek Lap Kok itself to form most of the foundation for the new airport.

Excavation of 90m cu metres of rock and weathered derivatives will be required, nearly one and a half times the UK's annual crushed rock production.

The purchase of equipment for the site information project will add bidding for the 30-month contract.

J. Sainsbury superstore

WINPEY SOUTHERN has won contracts together worth a total of more than £18m from three of the UK's major food suppliers - J Sainsbury, Nurdin & Peacock and British Bakeries.

The largest is J Sainsbury's flagship superstore at West Hove, Sussex. With a sales area of 40,000 sq ft and parking for 600 cars, the superstore will be landscaped to enable it to blend into its green valley surroundings. Elaborate brickwork detailing, clay tiled roofs

and glazed walkways will complement the design of the store.

Nurdin and Peacock is Winpey Southern's client on the second of its three awards - a £3m contract to construct a distribution warehouse covering 8,500 sq metres in Brighton.

The third contract is for the demolition of various buildings and construction of a steel-framed dispatch and ingredients store for British Bakeries in Brith Kent.

£15m retail developments

ALFRED McALPINE BUILDING, the specialist management contracting and design-build company within the Alfred McAlpine Group, has won over £15m worth of contracts in the retail sector in the UK.

Three of the contracts are for Marks & Spencer and total over £7m in value. Work has started on the extension and refurbishment of a store at Lancaster, while at Working-

ton a shell is to be fitted out to provide new retail space. The third project for Marks & Spencer involves fitting out a retail building at Northwich.

Alfred McAlpine Building is also undertaking a management contract for fitting out a developer's shell at the new Buttermarket Centre, Ipswich, for Owen Owen. The contract comprises 10,700 sq metres of retail space, offices, storage and access facilities.

CONFERENCES & EXHIBITIONS

FEBRUARY 24-25

Business Warfare
This is a strategic seminar which considers marketing planning in the context of a military strategy. The four alternatives - defence, attack, flank and guerrilla - are outlined and evaluated. Speaker: Tom Day. Contact: Knight, Frost & Sullivan Ltd. Tel: 071-730 3438. Fax: 071-730 3343.

LONDON

FEBRUARY 25

CZECHOSLOVAKIA CONFERENCE
Covering especially privatisation and investment in engineering, electrical and electronics industries and developments in banking system. London Chamber of Commerce. Contact: LCCI East Europe Section 071 248 444 x 2063

LONDON

FEBRUARY 25

COUNTRY BY COUNTRY SEMINAR: BENELUX COUNTRIES
Another course in a monthly series looking at sources of commercial, company, statistical and market information by geographic area for researchers and information professionals. Venue: Barbican Centre, London. Contact: Jean Perry, TPPL on 071-251-5532. Fax: 071-490-4964.

LONDON

FEBRUARY 25 & 26

International Banking
The 1992 meeting will examine how the international banking industry is responding to the challenges of economic uncertainty and the continuing pressure on profitability and margins. Enquiries: Financial Times Tel: 071-925 2332 Fax: 071-925 2125

LONDON

FEBRUARY 26

SUCCESSFUL STRATEGIES FOR DECISION MAKERS
A one day investment in your Company's future. This seminar covers: setting goals and identifying objectives, taking stock of your business and its marketplace, developing a vision for success, considering major options, etc. Contact: FIBEX Ltd. Tel: 071-499 9944 Fax: 071-236 6140

LONDON

FEBRUARY 26-28

Executive Information Systems
Delegates will have the opportunity to develop a profile of their company's unique EIS requirements and to evolve an implementation plan to meet these requirements. Speaker: Wayne C. Burdick. Contact: Louise Knight, Frost & Sullivan Ltd. Tel: 071-730 3438. Fax: 071-730 3343.

LONDON

FEBRUARY 27

Work at VDU's
A vital one day seminar for senior management on the implications of recent legislation (HSE) and forthcoming legislation (VDU Directive). Presented by Colin Mackay - HSE, Brian Pearce - Consultant Ergonomist, Tom Stewart - Chairman ISO TC159 SC4. Bell Howe Conference Tel: 0602 436323 Fax: 0602 436440

LONDON

FEBRUARY 27-28

11th EUROPEAN AGRICULTURAL OUTLOOK
Conference for the European agricultural industry. Speakers include: John Gummer, UK Agriculture Minister, Ray Mac Sharry, EC Commissioner responsible for Agriculture, Brussels. Contact: Melanie Taylor, Agri Europe (London) Ltd Tel: (0892) 533813 Fax: (0892) 544895

LONDON

MARCH 2

How To Implement Strategic IT Projects
This conference explores a range of practical approaches to planning for and actively managing the business impact of major IT projects, including understanding why strategic IT projects usually fail, and successful approaches to improving the visibility and user acceptance of systems. Contact: Business Intelligence. Tel: 061-544 1830.

LONDON

MARCH 3

Technical Analysis: A User's Guide
Provides a comprehensive understanding of Technical Analysis with no prior knowledge assumed. Essential for all involved in currencies, stock and bond markets, futures, options and commodities. Course repeated in various European locations. Investment Education plc. Tel: 061 833 9656 Fax: 061 834 8050.

LONDON

MARCH 4&5

EPoS Selection, Implementation and exploitation.
For retail finance, store operations and IT executives considering installing EPoS or wishing to maximise the benefits of an existing system. Evening Hotel. Contact: Frances Rieley, Marston International. 0823 335469

HEATHROW

MARCH 5

Rapid Development in an Open Systems Environment
This seminar explores the business benefits of open systems, and how the use of a Rapid Application Development approach can optimise the benefits of an open systems framework. F.O.C. Contact: RITA Information Engineering. Jackie Hensley Tel: 0784 243058 Fax: 0784 243003

LONDON

MARCH 5

CORPORATE ACTIONS
Provides a detailed understanding of Corporate Actions, what they are and why they occur. Course repeated in various European locations. Investment Education plc. Tel: 061 833 9656 Fax: 061 834 8050

LONDON

MARCH 9

GLOBAL CUSTODY: A PRACTICAL OVERVIEW
Provides a detailed understanding of Global Custody and the various specialist operations involved. Course repeated in various European locations. Investment Education plc. Tel: 061 833 9656 Fax: 061 834 8050

LONDON

MARCH 9 - 11

Distributor Sales Network
For those who are involved with, or are considering becoming involved with, a distributor network to help achieve business objectives, attending this seminar will help enormously. Speaker: William C. Path. Contact: Louise Knight, Frost & Sullivan Ltd. Tel: 071-730 3438 Fax: 071-730 3343.

LONDON

MARCH 10

STRENGTHENING YOUR INFLUENCE IN EUROPE
Major conference for UK Trade Associations and Chambers of Commerce to examine ways in which communications with Brussels can be improved and representation of the UK's commercial and industrial interests strengthened. Contact: John Sibley - NEDD/Rhylans - 071-217 4054

LONDON

MARCH 10 & 11

The European Water Industry
Policies for preventing water pollution and protecting water quality in the UK and EEC, changing systems, finance for infrastructure in Eastern Europe will be addressed. Enquiries: Financial Times Tel: 071-925 2332 Fax: 071-925 2125

LONDON

MARCH 10-12

ANGLO-IRANIAN ROUND TABLE
convened by The Royal Institute of International Affairs and Nuffield College, University of Oxford, in collaboration with The Institute for Political and International Studies, Tehran. To be held at Chiswick Lodge, The Great Park, Windsor. Enquiries: RITA Conferences. Tel: 071 957 5700. Fax: 071 957 5710

WINDSOR

MARCH 11

A NEW CONTRACT SYSTEM
A seminar at which Max W. Abrahamson will launch his new system (supported by graphics and computer methods) for drafting and applying contracts for modern complex building and engineering projects. Contact: Jenny Blisset, Baker & McKenzie, Aldwych House, Aldwych, London WC2B 4JP. Tel: 071 242 6531.

LONDON

MARCH 11-13

Management Skills for the New & Prospective Manager
A highly participative and practical seminar for project managers who need to develop and maintain high performing teams. Speaker: Regina E. Zekis. Contact: Louise Knight, Frost & Sullivan Ltd. Tel: 071-730 3438 Fax: 071-730 3343

LONDON

MARCH 12

Work at VDU's
A vital one-day seminar for senior management on the implications of recent legislation (HSE) and forthcoming legislation (VDU Directive). Presented by Colin Mackay - HSE, Brian Pearce - Consultant Ergonomist, Tom Stewart - Chairman ISO TC159 SC4. Bell Howe Conference Tel: 0602 436323 Fax: 0602 436440

LONDON

MARCH 16

FOREIGN EXCHANGE
Provides an excellent and comprehensive understanding as to how foreign exchange markets work, the use and conditions involved, etc. Course repeated in various European locations. Investment Education plc. Tel: 061 833 9656 Fax: 061 834 8050

LONDON

MARCH 17

BONDS AND FIXED INTEREST MARKETS - AN OVERVIEW
Provides a comprehensive overview of the major bond and fixed interest markets, their instruments and workings. Course repeated in various European locations. Investment Education plc. Tel: 061 833 9656 Fax: 061 834 8050

LONDON

MARCH 17

TOTAL QUALITY
Overcoming the barriers to successful implementation. Contact: Robert Harty CBI Conferences Tel: 071 279 7400 Fax: 071 497 3646

LONDON

MARCH 18

Harvesting value from information technology
Warwick Business School. Speaking on this key topic are senior executives from J. Selim, Granada Information Services, British Steel and Celanese. Sponsored by Comshare, Warwick Business School and Nolan, Norton & Co. Enquiries: The Event Organisation Centre. Tel: 071 924 1790 Fax: 071 228 8034.

COVENTRY

MARCH 19

KNOW YOUR JUNGLE
Essentials of Competitor Intelligence & Analysis. A practical one day seminar/workshop from the UK's Not specialist. Benefits: CIMA Action Plan: Targets, Sources, Methods, Practical case exercises. Successful case studies. Contact: Patricia Dornard with other seminar dates to: EMP Intelligence Service. Tel: 071-487-5665 Fax: 071-935-1640

MANCHESTER

MARCH 19

Managing Supplier Relationships
This conference focuses on the key issues that face I.T. managers in obtaining the best deal from suppliers, exploring some of the most common problems encountered by purchasers, and showing how they can be avoided. Contact: Business Intelligence. Tel: 061-544 1830 Fax: 061-544 1832

LONDON

MARCH 20

PRICING IN THE SINGLE MARKET
Implications for Companies on Pricing Strategies. Can Companies charge different prices for the same products in different EC markets? Businessmen and their advisors should understand new trading regulations and know the penalties for breaching the rules. Includes practical case studies. Contact: Alison Jones - IBC Tel: 071 637 4383

LONDON

MARCH 23&24

COMPANY INSOLVENCY
Two day conference will discuss in depth the latest administrative and legal developments concerning company insolvency. Enquiries to Sarah Ayton, IBC Legal Studies and Services Ltd. Tel: 071 637 4383 Fax: 071 631 3214

LONDON

MARCH 23

Work at VDU's
A vital one-day seminar for senior management on the implications of recent legislation (HSE) and forthcoming legislation (VDU Directive). Presented by Colin Mackay - HSE, Brian Pearce - Consultant Ergonomist, Tom Stewart - Chairman ISO TC159 SC4. Bell Howe Conference Tel: 0602 436323 Fax: 0602 436440

LONDON

MARCH 24

DOING BUSINESS IN CZECHOSLOVAKIA
A corporate step by step guide through one of the major opportunity areas. Sponsored by Comshare & Lybrand Europe. Subjects covered include: Investment opportunities, legal & taxation issues, labour environment, acquisitions, accounting issues and a case study. Contact: FIBEX Tel: 071-499 9944 Fax: 071-236 6140

LONDON

MARCH 26-27

Intellectual Property RIGHTS
A major EC orientated conference for marketing and business managers, R&D personnel and legal advisers. Speakers include: DGII, IBM, Siemens, ICL, Linde, and Patex. Contact: Hilary Moore. Tel: 071-430 2661 Fax: 071-431 4258.

LONDON

MARCH 30-31

ACHIEVING CUSTOMER SERVICE QUALITY
How to gain and retain customers through Customer Service Quality programmes and training. Speakers include: Avis Europe Ltd, Marks & Spencer plc, Shell UK Oil, TARP Europe Ltd. Contact: Hilary Moore. Tel: 071-430 2661 Fax: 071-431 4258.

LONDON

MARCH 31

Women in Management: Making the most of a valuable asset
This highly practical conference addresses issues that UK industry must resolve in order to make the best use of women in management. Participants include Rt Hon Angela Rumbold, Baroness Rumbold, CBE. Contact: Westminster Management Consultants Ltd. Tel: (0483) 740 727 Fax: (0483) 740 727

LONDON

APRIL 1-2

CEASPEX EUROPE 92
Highlighting Developments and Future trends in Specialty, Performance and Fine Chemicals - Organic Intermediates - Contract & Toll Manufacture. G-MEX, Manchester. Contact: Valerie Shilling, FIAS International Publications Ltd. Tel: (0737) 768611 Fax: (0737) 761685

MANCHESTER

APRIL 1-2

Highly skilled Development and Future trends in Specialty, Performance and Fine Chemicals - Organic Intermediates - Contract & Toll Manufacture. G-MEX, Manchester. Contact: Valerie Shilling, FIAS International Publications Ltd. Tel: (0737) 768611 Fax: (0737) 761685

MANCHESTER

APRIL 1-2

Alternative Dispute Resolution
A one-day seminar on the implications of increasing legal costs? Analysis of mediation, national and international arbitration and conciliation procedures. Speakers: CEDR, Chartered Institute of Arbitrators, Centre of International Arbitration, IDR Europe Ltd. Contact: Hilary Moore. Tel: 071-430 2661, fax: 071 831 4258

LONDON

APRIL 6

ARTS

Purcell
Room
recitals

Not before time the South Bank is endeavouring to lift the image of the Purcell Room. After years of this venue providing a bald platform space for recitalists to perform in front of invariably meagre audiences, it is getting a bit of a face-lift, with avant-garde works of art on the walls, new curtains on stage and a few potted plants for evening events.

If this is the Cinderella of the South Bank's three concert halls, one can hardly claim it is being dressed up for the ball. But then cosmetic trappings like these will never count for much. The hall has good acoustics, which matter far more. And audiences will only come if the programmes are seen to be more enticing than in the past. I attended a pair of events last Thursday and may have been lucky, for these proved to be two uncommonly enjoyable recitals.

The first was at lunchtime, a Russian birthday programme. As befits a mid-day audience, it was made up of popular items, including favourite excerpts from the comic operas and the *Sorcerer's Apprentice*. But everything was set against the right spirit, light-hearted without being winsome. The soprano Eileen Hulse, accompanied by Scott Mitchell, offered a few nicely-turned songs and Yvonne Howard announced herself as a Russian comic heroine of noted promise, able to move her warm mezzo around with a real sparkle. Then, in the evening, came the first in a new series of song recitals. By and large the artists who will be appearing are not established figures on the recital platform, but this opening evening with the soprano Janis Kelly has set a standard for the others to follow - not least in the style and judicious touch of 1920s glamour with which it was presented.

The programme was an all-French one. It may be that the voice itself wanted some of the glamour of the singer's appearance, but if that means that she is prepared to work harder on the words to compensate, then it matters little. There was no doubt here that we had a recitalist who understood what she was singing and could speak the poems aloud quite eloquently if she wanted to. The first of her *Poèmes de Max Jacob* went with a deal of the zing which is quite central to them. The other virtues were important ones, shared equally between the singer and her accompanist, Iain Burnside: they both understand that in the French repertoire the less one does, the more the music is likely to respond. A group of *Fauré mélodies* was successful because the singer sang so simply, clearly, and yet it delivered more than does many a lavishly-fetted prima donna. At the end I could happily have sat through it all again.

Richard Fairman

ARCHITECTURE

A chapel to remember

A new building of European stature in England is a rare thing. I felt that I had seen one when I recently visited the new chapel at Fitzwilliam College, Cambridge designed by MacCormac, Jamieson Prichard - the practice of Richard MacCormac the current President of the Royal Institute of British Architects.

Fitzwilliam College is situated to the north of Cambridge's city centre, where it occupies a flat site of some eight acres. The first range of residential and college buildings were designed in the 1930s by Sir Denys Lasdun. The budget was extremely restricted by the modest resources of the University Grants Committee. As a result the long ranges of brick and concrete buildings are functional but uninspiring.

The plan of the college, devised by Lasdun, was an intelligent one with a spiral arrangement of college buildings around the centrally placed hall and public rooms. The hall itself does provide a moment of architectural excitement with its explosion of parabolic curved roofs soaring from a fort-like brick base. More recently a new residential range was added to an intriguing design by Richard MacCormac. This is now looking very well as the planning grows around the window bays from a series of brick terraces.

The chapel is the latest addition to the college and is the result of a generous private benefaction. It seems to me to be one of MacCormac's best and most complex buildings. He had a difficult task to join a modest chapel on to a Lasdun range. What he has achieved is a creation resonant with architectural ideas.

The plan is a circle joined by a bridging element to the flat end of an existing block. The circle defines the whole building, immediately giving it a strong but discreet character on the college campus. The chapel itself is on the first floor and is reached by two curving staircases that gradually emerge into the clear light of the main chapel space. This is defined by four structural columns supporting a flat roof which surmounts a clerestory of windows giving top light. In

section, the chapel lies like a boat moored between the staircases, apparently suspended in space. The impression of a boat is reinforced by the swelling timber underside of the chapel which you pass as you climb the stairs; you almost feel as though you are clambering into the safety of a sturdy rowing boat as you reach the timber floor of the main chapel, a sensation which is enhanced by the ships railings surrounding the edge chapel. The altar stands towards one edge of the circle. Behind the altar is a flat wall of glass giving on to a beautiful view of lawn and trees.

I heard the architect talk in Oxford about his chapel and the symbolism of its design. We are, when we approach the chapel, moving on a journey through life that takes us into the safe haven of an ark which may transport us into the after life. The boat-like form of the small chapel inside the thick walls is a protected place where we can deal with grief and death and look out into the only eternity we can see - the perpetual miracle of the renewal of nature. This is an intuitive building, its mystical sensations made manifest by the care exercised by the architect - and the craftsmen, who built the chapel and made the joinery to such a high standard.

For once, here is a building that prompts a whole series of architectural associations and influences. The circular form with cubic shapes inside it has a long tradition. In 1553, Vignola built a cube with an oval drum at the church of S. Andrea in the Via Flaminia, Rome. He was to develop this oval design at S. Anna dei Palafrenieri in the Vatican later in the late 1560s. Here the church itself is oval in plan, but set inside a rectangle. Michelangelo's Capella Sforza in S. Maria Maggiore in Rome (built to Michelangelo's design but probably completed by Giacomo della Porta in the late 16th century) is a real precedent for the Fitzwilliam chapel. In plan the apsed transepts are formed of curves which are less than a semicircle. The whole design shows incomplete forms leading into one another - something later Baroque

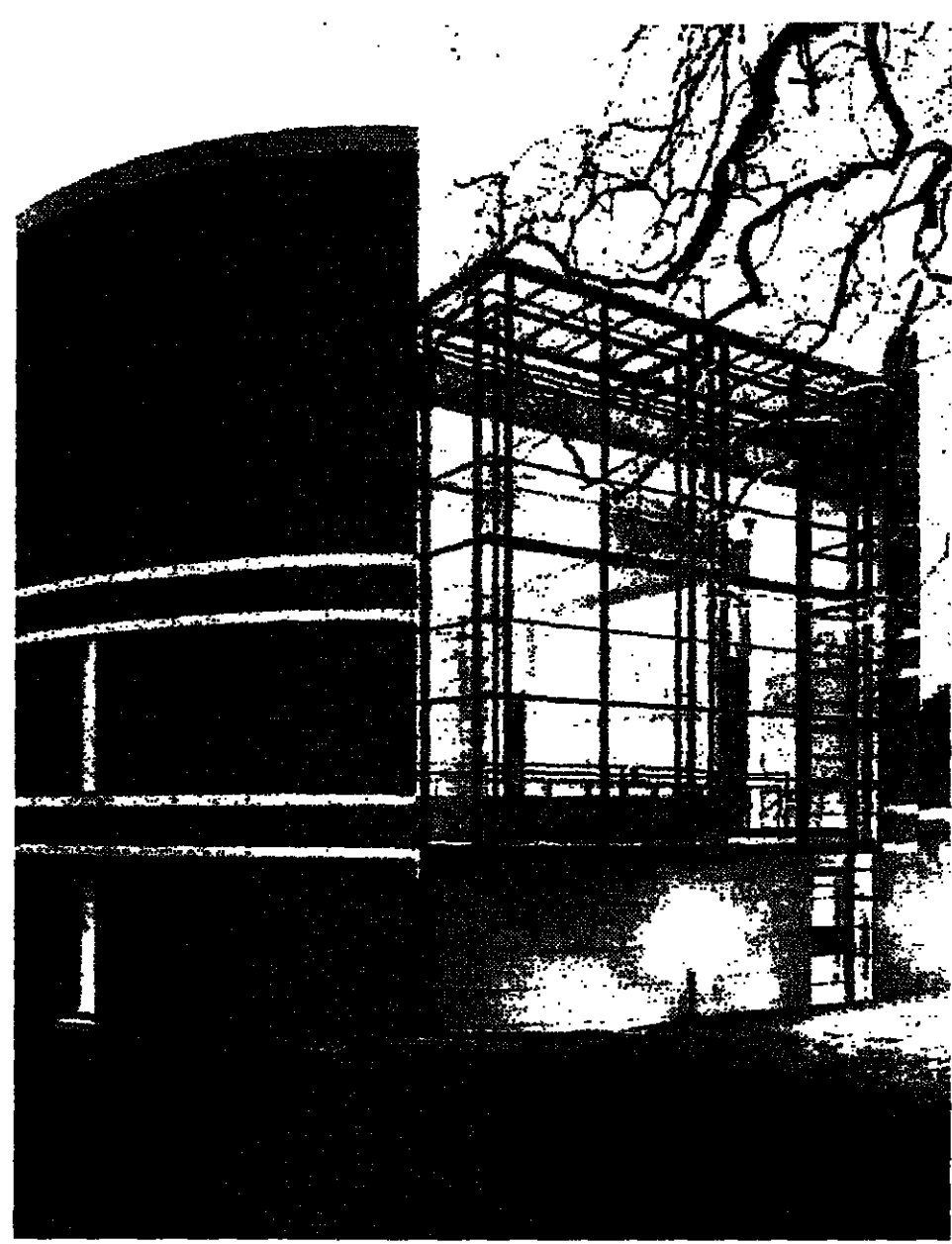
architects, especially Borromini, were to understand and exploit.

The flavour of MacCormac's chapel is, however, far from the Baroque. There is more than a reminiscence of the work of Sir John Soane. This is seen in the way MacCormac cleverly allows light into the building, through the interstices of the various elements. Soane, too, was intrigued by the idea of "things inside other things". The great glass wall that allows nature almost to surround the altar comes from the famous students' chapel at Otaniemi near Helsinki, in Finland, designed in the 1950s by Kajja and Heikki Siren. There a glass east wall brings the rather melancholy world of Finnish pine forests into the chapel. A large wooden cross stands in the wood beyond, like something from a wintry painting by Caspar David Friedrich.

Two other elements of the chapel are redolent of recent architectural history. The whole sense of fine timber and skilled carpentry brings into the mind the world of Frank Lloyd Wright's early houses and, perhaps more particularly, the Californian timber houses in Pasadena by the brothers Greene and Greene. The other element, the curved form of the brick walls, seems inspired by the work of Louis Kahn at his Salk Institute at La Jolla, California and his Government buildings in Dacca, Bangladesh. Mario Botta, too, has recently perfected the form of the circular brick tower - especially in his remarkable office "castle" in Lugano.

This small Cambridge college chapel is an important and enjoyable new building. Labels have been attached to it and he has been called a Romantic pragmatist. I suspect that all that really means is that he has taken advantage of the freedom of form and structure made possible by modernism - and added to it an imaginative sensitivity inspired by the more romantic strands of recent architectural history. Couple this understanding with a very strong sense of the value of materials, and you have a combination of geometry and feeling that is both remarkable and rewarding.

Colin Amery



The latest addition to Fitzwilliam College is the result of a generous benefaction. Richard MacCormac has achieved a small creation resonant with architectural ideas

Die Eroberung von
Mexiko

HAMBURG

Wolfgang Rihm's commission with the Hamburg Staatsoper is his fifth work for the opera house, though he has shrunk from calling them "operas" and settled instead for the more neutral, evocative description of "musical theatre". But *Die Eroberung von Mexiko* ("The Conquest of Mexico") makes a thrilling piece of music drama on the grandest imaginable operatic scale, with its requirement for orchestral ensembles to be dispersed around the audience, pre-recorded tapes, a huge chorus, and singers and speakers in the pit who "shadow" the voices of the onstage protagonists.

It also deals in big and intrinsically dramatic cultural ideas, chronicling the arrival in pre-Christian Mexico of Cortez and his conquistadores and their bloody subjugation of the native people and their beliefs. The confrontation between Cortez and the Mexican god-king Montezuma is at its core, and that clash of larger-than-life personalities was the starting point for Rihm's libretto, which he has based upon Antonin Artaud's 1934 outline scenario of the same name. Other textual references are drawn into the dramatic net too - the poetry of Octavio Paz, for instance, but in many ways the treatment of *Die Eroberung* is far more direct than in Rihm's previous large-scale dramatic pieces: there is none of the bundling of myths and philosophical lines to be found in his *Hamlet machine* and *Oedipus*

from the 1980s which, together with Rihm's Artaud ballet *Tuborg* from 1982, are the new work's likeliest precursors.

What is carried over from these works is the economy of dramatic means: there is no clutter of superfluous characters to supply local colour, no weighing-down narrative to impede the action. The text focuses upon Montezuma and Cortez, the clash of masculine and feminine, the human and animal, to underline that the Mexican king is sung by a soprano onstage (the wonderfully eloquent and assured Renate Behle) and doubled by high soprano and contralto in the pit. The Spaniard is portrayed by a baritone (the light-voiced, charming and singing to underline that the Mexican king is sung by a soprano onstage (the wonderfully eloquent and assured Renate Behle) and doubled by high soprano and contralto in the pit. The Spaniard is portrayed by a baritone (the light-voiced, charming and singing to underline that the Mexican king is sung by a soprano onstage (the wonderfully eloquent and assured Renate Behle) and doubled by high soprano and contralto in the pit.

Through the synopsis identifies four distinct parts - Prologue, Confession, Overthrow, Abandonment - the action moves seamlessly, wonderfully paced. The opening section presents a potent image of a "waiting Mexico" dominated by magic and intuition. The music and action grows steadily out of nothingness. Percussion figures are tossed around the auditorium, muttering choruses begin to well up as heard, and identifiable vocal lines begin to define themselves. Elsewhere there is an

astounding range of vocal and instrumental effects, always precisely focused - massive choral outpourings (recalling the power and weight of Rihm's *Dies*, heard in London last year), sensuous melodic lines wrapped around the entwined voices, fierce declamatory explosions, threatening rhythmic chanting, matches of convincing tonality.

Without a complete score or libretto it was impossible to determine how much of the detailed dramaturgy of the Hamburg staging that counterpoints the musical scheme is part of Rihm's prescription, and how much the work of the director/designer Peter Mussbach. After the horrors of Mussbach's *Idomeneo* in Amsterdam last year it is reassuring to encounter a production as visually stunning and dramatically cogent as this. With bold, simple geometric designs and the use of primary colours, he never obscures the action, and finds images that complement precisely Rihm's surreal imagination.

Die Eroberung von Mexiko ends with the sight of a huge black cube, teetering obliquely downstage; inside it are Cortez and Malinche, trapped in irresolvable conflict, while the music fades out on a hushed, unaccompanied duet for Montezuma and Cortez that seems on first hearing as haunting as anything in contemporary opera. It is an important new work.

Andrew Clements

Leo in Love

NUFFIELD THEATRE, SOUTHAMPTON

If *Leo in Love* serves one useful purpose, it is as a reminder that the theatre is not simply the preserve of the commercial theatres of London and New York. The French, who after all invented the term, are responsible for this fatuous excursion into the emotional byways for middle age.

Jean Seurat's play, adapted and translated in the archetypal star vehicle - a little creaky in the joints and warped in the wheels, but offers a more or less roadworthy ride to an actor of a certain age. Produced originally as *Leopold Le Bien-aimé* in Paris in 1927, it was taken up by the French actor Georges Wilson, for whom it has become something of a speciality, and arrives in Southampton under the wing of Martin Jarvis.

The plotline is contrived to within an inch of its life. The eponymous Leo, woman hating bachelor, has a chance meeting on a riverbank with the "dead letter supervisor" for the Paris post office - a civil servant responsible for disposing of undelivered mail, who tells him of two misrouted letters from women which he opened years earlier. One is her suitor to get lost, while the other - to a man called Leopold - specified the time and venue for a romantic tryst, which, *hélas*, must never have been kept.

Immediately the letter to have been addressed to him, Leo is irresistibly transformed from curmudgeonly fisherman to ardent roger, who fixes all the village romances while inventing his one-time sweetheart and authoress of the letter to stay in the hope of rekindling their amour. Marie-Thérèse -

rather amusingly played by Sarah Badel - is now a pretty widow with no inkling of Leo's blighted love nor any recollection of the aborted assignment.

In the interests of those who plan to see the show during its forthcoming tour of the southern counties, I will give no more away except to say that director Patrick Sandford has driven a Rolls-Royce of a cast down a pretty paltry avenue. The capering joviality of Jarvis is nicely offset by a handful of cameos including a stringy spinster from Angela Pleasence and a sniffling priest from Christopher Gwynne. The set, by Robin Don, is a delight.

Claire Armitstead



Martin Jarvis as the woman hating bachelor

Romeo and Juliet

ROYAL EXCHANGE, MANCHESTER

One of the delights of the Royal Exchange Theatre in Manchester is that - as its name suggests - it is the home of the old stock exchange. The theatre in the round is on the trading floor. It is ringed by galleries and some of the old prices can still be seen chalked on boards.

This seemed a natural place for *Romeo and Juliet*, evoking images of Romeo shining up and down. The Manchester theatre, however, is full of surprises, and the central surprise of Gregory Hersov's modern dress production is that there is no balcony scene as such. Instead there is a bed scene; a large double bed where the adolescent lovers come of age is placed firmly in the centre of the stock exchange floor. Afterwards Romeo departs with a climbing rope, but we never see it being used.

There are other novelties. This is the first time that I have seen the early love-sick Romeo enter drinking from a bottle of Jack Daniels. Played by Michael Sheen, he also smokes heavily and wears a ring in his left ear. Alcohol is prominent throughout. The nurse (Gillian Hanna) gets drunk at the banquet. The icy Lady Capulet (Amelia Bullmore) seldom appears without a glass in hand, possibly as a sedative to protect her from her husband, splendidly played as a north country businessman by John Branwell. In the background there is a touch of John Braine's novel, *Room at the Top*.

Poetry is not the production's strong point. Mercutio's Queen Mab speech, spoken by Jud Meyers, comes out as rap, with the music going in the

background. There are no pauses to let the beauty of the lines take over. And whatever else may be said of Kate Byers's Juliet, she is not at her best when speaking verse. Some of the best-known lines like "Gallop apace, you fiery-footed steeds" come out as if they were simply par for the course.

Nevertheless, the entire show is an extraordinarily vibrant spectacle which, one is tempted to say, owes something to *West Side Story*. The remarkable fact is that, apart from the poetry, it gets everything right. This Juliet is, as the nurse (Gillian Hanna) gets drunk at the banquet. The icy Lady Capulet (Amelia Bullmore) seldom appears without a glass in hand, possibly as a sedative to protect her from her husband, splendidly played as a north country businessman by John Branwell. In the background there is a touch of John Braine's novel, *Room at the Top*.

The production owes a lot to the set, designed by David Short, and the lighting by Michael Giff. At first it looks as if the play will be done almost without scenery and props - in line with the modern dress. The main device is the light: Giff manages to capture the shimmering Italianate heat rising up from the floor. Yet the initial absence of props is deceptive. It draws attention to the importance of the bed when it appears centre-stage. And by the death scene at the end the stage is almost crowded with tombs.

The performance runs in Manchester until March 28 and then tours a number of leisure centres around the country. It is worth catching anywhere.

Malcolm Rutherford

INTERNATIONAL
ARTS
GUIDE
TODAY'S EVENTS

AMSTERDAM

Concertgebouw 20.15 Katia and Mariette Labèque play music for two pianos. Tomorrow: Ton Koopman directs the Amsterdam Baroque Orchestra, plus a recital by Jeroen van Nes. Wed: Raoul Dufy Quartet. Thurs and Fri: André Previn conducts the Royal Concertgebouw Orchestra. Sat afternoon: Frans Brüggen conducts the Rotterdam Philharmonic. Sat evening: Ely Ameling. Sun: Royal Flanders Philharmonic Orchestra (8718 345).

BOLOGNA

Teatro Comunale 21.00 Trevor Pinnock directs the English Concert in music by Handel, Bach, Telemann, Vivaldi and Corelli. Tomorrow, Thurs and Sun: Roberto Devereux (529999).

BARCELONA

Palau de la Musica 21.00 Wolfgang

Sawallisch conducts the Orchestra of La Scala, Milan. Thurs: Alexander Lazarev conducts the Bolshoi Orchestra and Chorus (288 1000). Tomorrow: This in Gran Teatre del Liceu: Roberto Gerhard's *La Duenna*. Sat: Jose van Dam (412 1466).

BERLIN

MUSIC Schusspfeilhaus 20.00 Neeme Järvi conducts the Berlin Philharmonic Orchestra in Stenhammar's *Excelsior* overture, Grieg's Piano Concerto (soloist Leif Ove Andsnes) and Nielsen's Second Symphony. Wed: Uwe Gronostay conducts Verdi's *Requiem*. Thurs, Fri, Sat: Giulini conducts the BPO (East Berlin 2090 2156).

Deutsches Oper 20.00 Rafael Frühbeck de Burgos conducts Götz Friedrich's production of *La bohème*, with Eva Johansson and Antonio Ordonez. Tomorrow and Sat: Aida. Wed: Tannhäuser. Thurs: ballets by Bjørn and Balanchine. Fri: Die Zauberflöte. Sun: Das Rheingold (West Berlin 3410 249).

THEATRE

East Berlin: the Maxim Gorki Theatre has a new production of Arthur Miller's *Death of a Salesman* opening on Sun, directed by Siegfried Bühr, with Klaus Manchen as Willy Loman. The repertoire also includes Helmut Müller's play *Leben Gundlings* tonight. T S Eliot's *The Cocktail Party* tomorrow. Carol Churchill's *Top Girls* on Thurs and Peter Shaffer's *Amadeus* on Fri (2082 748). The Deutsches Theater has Ionesco's *Le Bald Prima Donna* on Wed and Kleist's *Das Käthchen* on Wed and Heilbronn on Thurs and Fri

(2871 225), with Schiller's tragedy *Die Verschwörung des Fiesko zu Genua* on Thurs and Fri at the Kammeroper (2871 226). West Berlin: the Schaubühne has Botho Strauß's *Schlussschörr*, directed by Luc Bondy, on Wed, Thurs and Fri (890023). The Theater am Kurfürstendamm has daily performances of a stage adaptation of Woody Allen's *A Midsummer Night's Sex Comedy* (8823 789), and the Theater des Westens has the musical *Sweet Charity*, daily except Mon (3190 3193).

GENEVA

Victoria Hall 20.30 Armin Jordan conducts the Orchestra de la Suisse Romande in Schubert's Eighth Symphony, Strauss's Oboe Concerto (soloist Roland Perrenoud) and Mahler's Des Knaben Wunderhorn (soloist Anne Sofie von Otter). Repeated on Thurs in Lausanne (292511). Wed and Sat: Grand Théâtre. Thurs: Benvenuto Cellini (212311).

THE HAGUE

Dr Anton Philipsaal 20.15 Ton Koopman directs the Amsterdam Baroque Orchestra in an all-Haydn programme. Wed: Reinbert de Leeuw conducts the Schöenberg Ensemble in music by Scriabin, de Vries and others. Fri and Sat: Günther Herbig conducts the Residentie Orchestra in Schubert's Eighth Symphony and Mahler's Fifth (360 9810).

LONDON

Covent Garden 19.30 Royal Ballet triple bill: Ashton's *Scènes de ballet* and Monettes, plus William

Forsythe's in the middle, somewhat elevated with Sylvie Guillem and Laurent Hilaire, and *Scènes de ballet*. Tomorrow: Sat: Don Giovanni. Wed: Giselle (071-240 1066). South Bank Centre 19.45 Michael Collins and Mikhail Pletnev play music for clarinet and piano by Weber, Poulenc, Debussy and others. Thurs: Tannhäuser. Fri: Tannhäuser. Sat: Robert Cohen plays Elgar's Cello Concerto (071-928 8800).

Barbican 19.45 Sian Edwards conducts the English Chamber Orchestra in music by David Matthews, Bartok, Howard Skempton and Kurt Weill, with Emma Johnson soloist in Michael Berkeley's Clarinet Concerto. Wed: Hallé Orchestra. Thurs: Moscow State Symphony Orchestra. Sun: LSO plays Shostakovich's Fifth (071-638 8891).

Royal Albert Hall 19.30 Eric Clapton and his band. Also tomorrow, Sat, Sun and next Mon, Wed, Thurs and Fri (071-823 9998).

MILAN

Teatro alla Scala 20.00 Michele Campanella plays piano music by Prokofiev. This is the only event at La Scala this week (7200 3744).

NEW YORK

Metropolitan Opera Tonight at 20.00: first performance this season of *Rigoletto*, conducted by Neilo Sant, with Ruth Ann Swenson, Richard Leech and Alain Fondary,

also Thurs. Tomorrow: Un ballo in maschera. Wed and Sat: Il barbiere di Siviglia. Thurs: Tannhäuser (362 5000).

Avery Fisher Hall Tomorrow's New York Philharmonic concert is conducted by Andrew Davis, and includes Sibelius' Fifth Symphony. Thurs, Fri and Sat: Kurt Masur conducts symphonies by Franck and Brahms (875 5030).

New York State Theater This is the final week of the New York City Ballet season. There are daily performances from tomorrow till Sun, with matinees on Sat and Sun. The performance on Sun evening is a Dancers' Emergency Fund Benefit (070 5570).

PARIS

Opéra Bastille 19.30 Myung-Whun Chung conducts André Engel's production of Lady Macbeth of Mtsensk, repeated on Thurs and Sat. Tomorrow and Wed in the Amphitheatre: Yukio Mishima in a Noh theatre production (4001 1616).

Châtelet Auditorium 21.00 Buster Williams Quintet opens a week of jazz events. Tomorrow: Von and Chico Freeman Group. Wed: Henry Threadgill Ensemble. Thurs: Benny Golson and Curtis Fuller Group. Fri: James Moody Quartet. Sat: Teddy Edwards Group. Sun: Courtney Pine Septet. Fri, Sat, Sun in Châtelet main theatre: Frankfurt Ballet (4028 2840).

Salle Gaveau 20.30 Richard Hickox conducts the Ensemble Orchestral de Paris in Haydn's First Piano Concerto (soloist Patricia Pagny) and Mozart's Symphony No 39 (4953 0507).

Théâtre de la Ville 20.30 Recital by Chaurasia, Indian Nautilus,

Tomorrow till Sun: Bernard-Marie Koltès' play *Roberto Zucco*. Fri and Sat at 18.00: Janos Starker plays cello sonatas (4274 2277).

Palais Garnier From tomorrow till Sat, the Stuttgart Ballet gives daily performances of John Neumeier's *A Streetcar Named Desire* (4017 3335).

Théâtre des Champs-Élysées On Fri, Rockwell Blake sings arias by Mozart and Rossini with the Sinfonietta of Picardy. Sat: Claudio Abbado conducts the first of five performances of Rossini's *Il Viaggio a Reims*. Sun and next Mon: Carlos Kleiber conducts the Vienna Philharmonic (4720 3637).

Salle Pleyel Lynn Harrell plays Haydn's D major Cello Concerto in this week's *Orchestre de Paris* concerts on Wed and Thurs, conducted by Neeme Järvi. On Sat, Alexander Gibson conducts the Orchestre National d'Ile de France in Grieg's Piano Concerto (soloist Philippe Cassard) and Sibelius' Fifth Symphony (4563 0786).

UTRECHT

Vredenburg 20.15 André Previn conducts the Royal Concertgebouw Orchestra in Brahms' Violin Concerto (soloist Viktoria Mutlova) and Elgar's Second Symphony. Wed: song recital by Jeroen van Nes. Sun: Lazar Berman piano recital (314544).

VIENNA

Staatsooper 19.30 Minkus' ballet *Don Quixote*, also Thurs. Tomorrow: Otello (Domingo). Wed and Sat: Die Frau ohne Schatten. Fri: Madama Butterfly. Sun: Der fliegende Holländer (51444 2960).

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Monday February 17 1992

How to cut BT's prices

THE MOST encouraging feature of the BT price review, which started last month, is that it will be conducted in a large extent in the open. Past examinations of the telecommunications group's prices by OfTel, the industry regulator, have been behind closed doors.

Openness is important not just because price control must be seen to be fair to BT's customers. It is also important because errors in controlling the company's prices in the past have mainly resulted from OfTel's exclusive reliance on its own internal resources. Sir Bryan Carsberg, OfTel's director-general, may be a distinguished accountant, but he has a tiny staff to pluck against BT's array of lawyers, economists and accountants. By consulting widely, Sir Brian should receive help from independent experts.

Sir Bryan is right when he asserts that a price cap is a better way of controlling BT's monopoly power than direct curbs on profits. A price cap gives the company an incentive to improve efficiency, because it is allowed to keep any extra profits that it earns through cutting costs.

But profits must be taken into account in setting the price cap. The cap should allow BT to earn reasonable profits if it makes reasonable progress towards higher efficiency, but reward it with extra profits only if it makes exceptional progress on efficiency.

Detailed forecasts

Judging exactly how far BT's prices should fall can only be made on the basis of detailed forecasts of the effect on profits of different price caps and of different degrees of efficiency. OfTel will be doing this work in the next few months. In the new spirit of openness, it should publish these before concluding a deal with BT.

On the basis of the figures now in the public domain, however, the provisional conclusion has to be that BT's profits are excessive. In the financial year to the end of March 1991, BT earned a return of 25.4 per cent on the capital employed in its regulated businesses, compared with the 18 per cent that OfTel had initially expected. The difference

between these two rates - about 700m in hard numbers - is a measure of BT's extra profits.

What then should be done? Nothing, according to BT. Its argument is that the price cap, which was tightened last year, is already cutting profits, as the 4 per cent decline in pre-tax profits for its third quarter reported last month shows. The likely effect of the current cap should, indeed, be the starting point for the review. But looking at one quarter's profits in isolation, especially in the depths of a recession, cannot be the basis for a formula that will last for four or five years. Profits normally fall in recessions. Most other companies have been much worse affected than BT.

One-off cut

If, as seems likely, BT is still earning excess profits when the current cap expires, there are two principal ways of returning them to telephone users. OfTel's preference would be to tighten the cap a notch or two, but a one-off cut when the next price cap is imposed would also be possible.

Sir Bryan's objection to a one-off cut is that BT would have less incentive to improve efficiency in future if extra profits earned this way were clawed back immediately. He argues that in a competitive market, which ought to provide the benchmark for regulating a near monopoly like BT, firms with particularly high efficiency see their extra profits eroded gradually because it takes time for rivals to catch up.

This argument would be conclusive if BT's extra profits were the result of better-than-expected efficiency. But OfTel has explained the divergence between BT's actual profits and its forecasts mainly in terms of its initial decision not to regulate the company's international call charges, which earn a return on capital of over 50 per cent. Why should BT's customers have to pay more because of a regulatory oversight? It seems sensible to phase out extra profits that stem from BT's extra efficiency only gradually, but it would be better to hand back those that do not in the form of a one-off cut.

Short-changed

PUTTING your money into a savings account with a bank or building society is no longer the straightforward activity it once was. As a growing number of savers have discovered in the last year, banks and building societies commonly discontinue a well-established savings account and replace it with a similar one offering better terms to attract new customers.

Savers who do not monitor carefully what their building society is doing may be stranded in an account which earns less interest than they have a right to expect.

Building societies offer several excuses for doing this kind of thing. One is that in the age of retail financial markets, savers ought to shop around constantly for the best bargain as they do when buying cornflakes or shoes. Another is that savings institutions are forced into this sort of play because consumers are already too astute and the savings business is less profitable than it used to be. The real reason seems to be that computer technology has made it easy to

close off existing customers and old accounts, and thereby pay the better interest rate only to a smaller group of new customers.

A recent ruling by the Building Societies Ombudsman accepts that societies should take reasonable steps to inform customers of new accounts by advertising in the press and publicising in their branches. Rather weakly, the Ombudsman stopped short of insisting that building societies should actually tell customers directly when a better account is available.

Yet when TSB Bank opened a new savings account recently, it wrote to all holders of similar old accounts, telling them they would be transferred to the new one. One society, National & Provincial, has promised to tell its customers what the best account is for each savings institution. It says are not only the customers of building societies: they are also their owners. When an industry treats its owners this way, it is a sign that something is going seriously wrong.

Water babies

THE CHAIRMEN of the UK's privatised water companies have not hitherto been seen as negotiators in the Gordon Gekko class. Yet in one week's frantic haggling in July 1989, they appear to have out-negotiated ministers and civil servants to the tune of £2bn.

The story is told in the National Audit Office's account of water privatisation, released on Saturday. Even through the foot-deep litter of Whitehall caveats, it is possible to detect what really happened. The government's merchant bank adviser, Schroders, told it that - partly because of regulatory uncertainty - water companies' shares would have to yield more than those of British Gas. It argued that the companies would need to cover their interest payments four times over with profits for a mass market privatisation to succeed.

That was what the government wanted, but it tried to keep interest cover to three times. Enter, in that crucial July week, the water chairmen, playing their trump card: unless the government loosened controls on prices, and

gave them stronger balance sheets, they would have to make heavy qualifications (the NAO's words) in their flotation prospectuses.

Over the next few days, the government caved in: it relaxed price ceilings, switched from net debt to the companies' £435m to a cash injection of £1.1bn; jacked up predicted future costs, and gave way on interest cover.

Since much of the companies' riskiness had now been eliminated, was it still necessary to offer such a generous yield? Apparently so. The average yield was set at 8.55 per cent, compared with British Gas's 7 per cent.

The sale went well. Since then, the water companies' shares have outperformed the market - and British Gas by 80-90 per cent. They now yield less than Gas.

Water privatisation raised £3.6bn for the taxpayer, some £2.13bn less than the government's "illustrative" estimates before the July negotiations started. Let us have simpler, more laudably privatisations in future, says the NAO. Let us have better negotiators, too.

It is the best of times and the worst of times for Ford in Europe. Never has its performance in the world's biggest car market been painted in such stark colours of success and failure.

It achieved record car sales in western Europe last year and yet collapsed into a record loss, compounding the huge losses it had also racked up in the US.

The world's second-largest vehicle maker captured its biggest ever shares of the Italian and French car markets and achieved its highest-ever sales volume in Germany.

In the UK it suffered its lowest car sales since 1977 and, most alarmingly, its UK market share sank to its lowest level since 1975.

At Ford of Britain - traditionally the rich cow of its European operations - record profits of £47m (on ordinary activities) in 1988 have been transformed in three years into a staggering loss (on ordinary activities and before extraordinary gains) of £820m in 1991.

In the US parent company's books Ford made a net automotive profit of \$284m last year in continental Europe. The surplus was obliterated, however, by the losses of \$761m at Ford's established British operations and losses of \$354m at Jaguar, plus the heavy financing costs - \$247m - of the Jaguar acquisition. The result was a European automotive loss of \$1,079m.

The woes of Ford's mainstream operations in the UK have been compounded by the medium-term financial disaster of the Jaguar takeover. The £1.6bn proudly paid by Ford at the end of 1988 to acquire the UK luxury car maker is rapidly looking like the sting of the century for Jaguar's former shareholders.

Exacerbating Ford of Europe's management discomfort is the sight of General Motors, its arch rival and for long the loss-making laggard in Europe, accelerating past it to a succession of bumper profits.

Ford and GM both sold just over 1.8m cars in western Europe last year. While GM is expected to unveil record net profits for its European operations of about £2bn for 1991 - dwarfed unfortunately by GM's huge losses in the US - Ford has only red ink to show for its efforts.

The reasons for the crisis that has engulfed Ford in Europe can be found in large part in the UK recession. Urgent emergency roadside repairs are now being carried out at Ford of Britain, but the broader European problems are more deep-seated. Ford of Europe is confronting severe structural challenges as it seeks not only to recover the ground lost to its European rivals, but also to prepare for the Japanese onslaught.

Most immediately it must staunch the haemorrhaging in the UK. Ford of Europe executives, pressed to explain the financial woes, point first to the failure to forecast the depth of the UK recession.

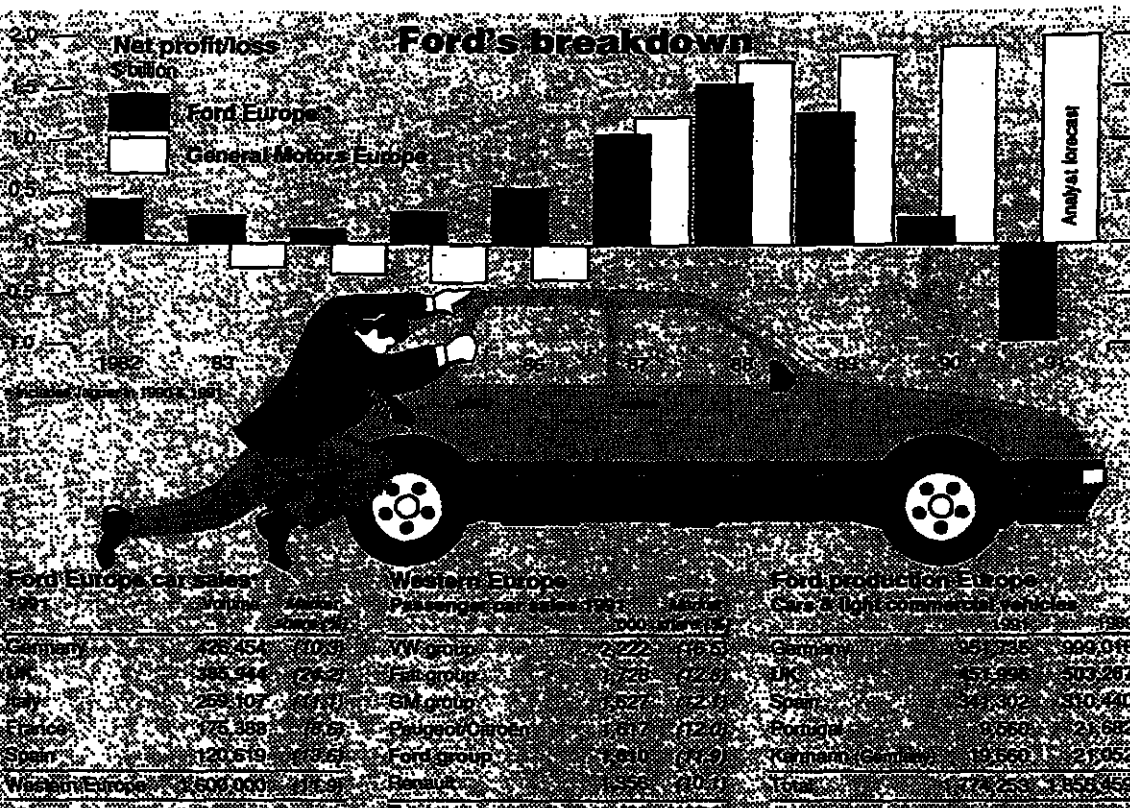
Mr Bill Pike, the aggressive president of Ford of Europe, says simply: "The market fell away from us last year. We had excess stocks. Each month the industry was falling away faster than our forecasts."

Mr Ian McAllister, Ford of Britain chairman and managing director and another new arrival in Ford's European management blood-letting, said last week: "We were building vehicles for a market that did not exist."

Faced by the task of "liquidating" its bloated stocks, Ford embarked on a ruinously expensive price war in the UK last summer. Marketing costs jumped in the UK last year to the shocking level of 24 per cent of revenues from 14 per cent in 1990. These costs range from discounts and low-cost leasing to the fleet deals that Mr McAllister last month. "We have elected to reduce our volumes (sold) to the daily retail fleets in 1992 rather than just turning over metal. It is not

Ford needs short-term repairs in the UK and a long-term overhaul across Europe to be a survivor in the 1990s, writes Kevin Done

Winter of despair, spring of hope



economic." Ford of Britain was taking action, "so that we are not laundering vehicles through dealers into used car fleets," he said.

With the zeal of the newly converted he insisted: "I don't see the point of chasing registrations for the sake of it."

After two years of trailing the recession down towards Mr McAllister insists that the UK operations have touched bottom, although he refuses to indicate when the company might re-emerge into the black.

There is a long way to go, however. Last year, excluding Jaguar, Ford of Britain's traditional operations slid to a pre-tax loss on ordinary activities of £47m from a profit of £81m a year earlier.

As marketing costs escalated, production has had to fall to bring stocks under control. Ford is creating under the burden of fixed costs. The British operations, excluding Jaguar, used only about 70 per cent of their plant capacity last year. The Halewood, Merseyside, Escort/Orion plant suffered 110 "down days" with no output.

The Southampton Transit van plant suffered 50 "down days". Only Dagenham of the three assembly plants escaped such costly production cuts, thanks to its ability to produce left-hand-drive cars for continental Europe. More than 90 per cent of Dagenham's Fiesta production was exported last year.

In a glaring oversight Ford had failed to equip Halewood for left-hand-drive Escort/Orion car production. Trapped in the confines of the UK market it worked a three-day week for

most of 1991, and car output totalled only 127,117 last year compared with 198,904 in 1989. (In 1990 Halewood output was hit by a seven-week strike). Belatedly the mistake has now been made good and car export shipments from Halewood started this month.

The Halewood mistake was exposed by the pattern of new car demand in Europe. While there was famine in the UK, formerly Ford's biggest European market, there was feast in Germany.

The imbalance was exacerbated by

'We were building vehicles for a market that did not exist'
— Ian McAllister, Ford of Britain chairman

a shortage of the right mixture of engines and gearboxes, says Mr Pike. Ford is investing heavily to catch up with its rivals' engine programmes - the first units from its 3.0-litre Zetec engine development programme have started coming off the assembly lines at Bridgend, South Wales - but last year it was left having to push "brown" engines to unwilling customers in Germany because of the lack of "green" engines equipped with catalytic converters.

Ford was left with capacity where it had no sales in the UK, but with demand in Germany which it did not have the capacity to satisfy.

Mr Lindsey Halstead, Ford of

Europe chairman, insists this will improve in 1992, when sales finally begin to pick up in the UK, and as the abnormal demand generated in Germany in the wake of reunification subsides. "That will put us in a better financial position."

For the longer term, the Ford of Europe top management seeks to attack the daunting structural challenge. Last week the meeting went on from Ford of Europe's Warley, Essex, headquarters via its private television network to the workforce of nearly 100,000 that the company was "leaving no stone unturned to find ways of improving the international competitiveness of our European operations".

The comforting reassurances being followed by tough actions. "The battle in Europe has begun - and truly only the fittest will survive," Mr Pike told more than 300 senior Ford managers recently.

In the past year he says \$500m of costs have been taken out of Ford's European operations. For the first time for decades the European workforce is now below 100,000. In 1979 a workforce of 150,000 produced 1.4m vehicles; last year a 100,000 workforce produced 1.8m units.

The screw is being tightened further. Another 2,100 jobs will be cut in the UK alone this year. Layers of senior management are being taken out as Mr Halstead works to flatten the pyramid of Ford hierarchy and aims to cut indirect salaries staff across Europe by a third.

Mr Halstead believes that part of Ford's current lack of competitiveness

stems from its supplier structure. (Some 50 per cent of the costs of a car are bought in from outside suppliers.) Now the numbers are being cut radically and remaining suppliers will have to shoulder much more of the research and development burden. The number of suppliers has been cut by 15 per cent to 900 since 1986; Ford plans to shrink the total by another 25 per cent by 1995 to 600.

Ford is aiming to achieve a 25 per cent cut in its investment spending by 1997 without reducing the quality of the investment. Involving component suppliers early in its product development, getting designers and engineers to work simultaneously and asking consumers what they want sooner are all considered vital to gain greater investment efficiency.

It is working again towards improved productivity and quality at the UK Dagenham and Halewood vehicle assembly plants, coupled with dire warnings to the workforce of a failure to catch up with Ford's equivalent continental European operations.

"It isn't the facilities that are different, there is not a damn thing wrong with the Halewood facility. It is the way labour is organised and the way labour functions. You have to close the gap (with continental Europe) eventually, or you have to shift capacity because otherwise you will have to say to hell with it," says Mr Halstead.

Ford is seeking to reduce the complexity of its model range. At the same time it has the ultimate ambition of reducing new model development times from the 72 months of the recent past to only 36 months by adopting radically different Japanese-style "heavyweight" project management teams. Under this system each major car product line would become its own mini-business area.

He admits that Ford has been cost-driven rather than customer-driven. At the same time it has been "awfully compartmentalised" with a vertical structure of sales and marketing, manufacturing, product development, finance and human resources all reporting upwards.

Instead Mr Halstead is seeking a horizontal structure with decision-making responsibility pushed down to the organisation. "It will take five more years to get where we want to be," he admits. "The Japanese are still the low-cost producers and they have more horizontal structures."

Mr Halstead accepts that Ford is hampered by having its research and development efforts divided between two sites in the UK (Dunton, Essex) and Germany (Merckens, Cologne), but declares that recent speculation that Dunton could be closed is "ludicrous". From 1985 to 1992 he invested £156m at Dunton. Now tell me we are going to walk away from that."

Instead the Halstead vision calls for the "co-location" of development teams working on a specific project at a single site. "There is a 10 per cent cost penalty of having two sites. We carry about 250 people more than we need, so we must reorganise to make the two sites stand more alone."

Beyond the radical structural reforms Ford also needs a healthier sales balance in western Europe by cutting its earlier overwhelming dependence on the UK.

For several years it has been plotting a strategy for conquering market share in southern Europe, and its actions are now yielding fruit. It has moved in on Fiat's domestic fleet in Italy and has managed to push its share of the Italian car market to 11.1 per cent last year from 7.7 per cent in 1990 and 4.8 per cent in 1989.

In the midst of its current woes Ford's success in Italy shines as one of the most considerable coups that any car maker has pulled off in the European arena. Fiat has claimed that Ford has simply bought market share, but Mr Halstead insists: "That is wishful thinking. We made money in Italy."

Pirelli's retreat

Step forward Marco Tronchetti Provera, 44, the new man at the helm of Italy's troubled Pirelli tyres and cables group. Little known outside the company until last December, he moved into the limelight when chairman Leopoldo Pirelli sold an astonished press the takeover bid for German tyre giant Continental had collapsed.

Tronchetti Provera, who, like the 86-year-old Pirelli himself is a substantial shareholder in the company, is thought to have been cool about Conti from the start. His scepticism has now paid off. Although Pirelli, a keen sailor, stressed the need for a firm hand on the tiller while the group was in troubled waters, it now seems that hand will be Tronchetti Provera's.

The change was not unexpected, although many expected Pirelli would wait until the autumn of this year before announcing his retirement. As it happens, he will remain non-executive chairman, while Tronchetti Provera takes over the job of executive deputy chairman as well as managing director. Undoubtedly, the move is a blow to generalists, who would have liked to see another Pirelli in charge. As it happens, Leopoldo's son, Alberto, 38, is still on the bridge. But Pirelli-watchers think it may not be long before he, too, jumps overboard, to return to studying machine biology, which they say is his true love.

Tory spinners

The opinion polls may show the two main parties in

OBSERVER

machine, the Conservative spin-doctors have seized the initiative.

The balance has been tilted by the permanent presence in the House of Commons press gallery lobby of Tim Collins, a former adviser to employment secretary Michael Howard. The inexhaustible and well-briefed Collins is available day and night (including Sundays) to provide a suitable ministerial quote for a "friendly" story or to highlight the latest "gaffe" by a Labour opponent. Meanwhile the Labour side is still suffering from the departure two years ago of the irascible but highly-skilled Peter Mandelson and, more recently, that of his deputy Colin Byrne.

Political journalists used to being spoon-fed, have started giving the benefit of the doubt to the Conservatives.

Free issue

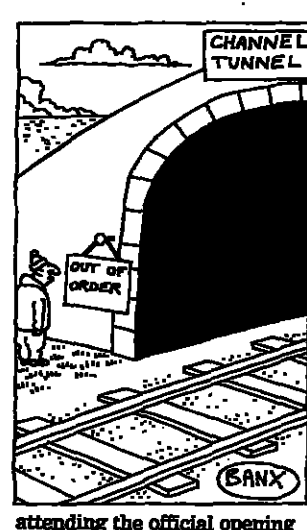
While we may be spared another war in the South Atlantic, there'll be ructions for the poor translator who produced the English version of last week's European Parliament speech by Argentine president Carlos Menem.

The original Spanish had the often-fixed president calling for greater EC-Argentine "interaction free of suspicions and mistrust". The official English translation unfortunately misplaced a word.

Let there be a free interaction of suspicions and mistrust," it read. Ouch.

Alien practice

The Japanese are noted for exporting their methodical, no-stone-unturned attitude to manufacturing, but sometimes, it seems, they go a little too far. Journalists



attending the official opening of Toshiba's UK air conditioning factory were surprised to find a prepared list of questions to "assist" them at a press conference after the Duke of Kent had unveiled the plaque and planted the obligatory tree.

An affront to the intelligence of the great British press? Not necessarily. Finding 30 questions to ask about air conditioning on a damp, foggy Friday on the outskirts of Plymouth would have taxed the ingenuity even of Observer's man on the spot. The trade press concurred: "I'll have No. 23," said the first intrepid questioner.

Rent-a-cop

How much a year does the average London bobby spend on photocopying? Answer: \$464. Another £188 is spent on postage and \$227 worth of telephone calls are made, according to the Metropolitan Police's internal costs guide released by the Association of London Authorities. Chief Superintendents use the reckoner to cost local

budgets and staff allocations for football matches and other public events. The figures give a fascinating insight into police priorities. A police dog costs £20.50 per day (what do they feed them?), but one can get 17 police dogs for the price of a commander (£249 per day). Police horses are a bit more pricey but you can still get six of them for the price of one constable (£145 per day). More conventional means of transport start at 70p a mile for police motorcycles rising to £2.38p a mile for a police coach.

And the cost of investigating unauthorised leaks of such sensitive information? Alas...

Protest

It has taken Britain's wider share ownership gang such an awfully long time to relax itself that it should have been able to think up a more catchy title than Proshare.

The search for a new name and logo has been "a bit like establishing Beano X or Daz," says one insider. "We have got to establish an image and get people identifying the services they want with that image." Dave Rogerson, no less, has been helping with the image building and on Thursday all will be revealed at a giddy press conference. Is Proshare any relation to Proun, the non-executive directors pressure group?

Fast food

"Once we're geared up," said a Yeltsin aide enthusing about his country's potential, "within 10 years 80 per cent of Muscovites could have their own private jet."

"But what would they want one for?" asked a western listener. "Well," came the reply, "Supposing they heard there were potatoes in St Petersburg, they'd be able to get there quick."

FT CONFERENCE 17 FEBRUARY 1992

INTERNATIONAL BANKING

London, 23 & 24 February

A distinguished panel of central, commercial and investment bankers from Europe, North America, the Middle East and Japan will review the outlook for the international banking industry. Speakers include: Mr. Richard M. Rosenberg, The Bank of Tokyo; Dr. Rik H. Hoffmeyer, Deutsche Nationalbank; M. Jean-François Laporte, Banque Indosuez and Dr. Hans-Martin Lipp, Dresdner Bank.

ESTABLISHING A PRESENCE IN JAPAN

London, 4 March

The Hon. Peter Lilley, MP will give the opening address at this one-day conference, arranged in association with Priority Japan. The strategic and practical aspects of doing business in Japan will be discussed, with presentations by Mr. Michael Perry, Chairman, Sir David Scholey, SCJ, Chairman, Dr. John H. Randall, SCJ, Japan; Mr. Tetsuo Saito, The Japan Development Bank and Dr. Peter Williams, Oxford Instruments.

WORLD PHARMACEUTICALS

London, 16 & 17 March

This topical programme, arranged in association with Corgis & Lybrand, will focus on how pharmaceutical manufacturers are globalising their organisations and operations in response to the demands of a changing marketplace. Speakers include: Mr. Robert Lippman of CIBA-GEIGY; Mr. James Wilson of Syntex; Dr. Azim Khandani of F.H. Hoffmann-La Roche; Professor Dr. Hans-Joachim Heymeyer of Hoechst; Dr. Peter Williams of the Upjohn Co; Dr. Eileen Morgan of AD Ames and Mr. Jean-Jacques Boucard of Rhône-Poulenc Rous.

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This course is designed for employees in companies with interests in the City to provide a broad understanding of all aspects of the operations of the City of London and the factors that make it a pre-eminent financial and trading centre.

INTERNATIONAL SECURITIES MARKETS: LIMITING MARKET RISK

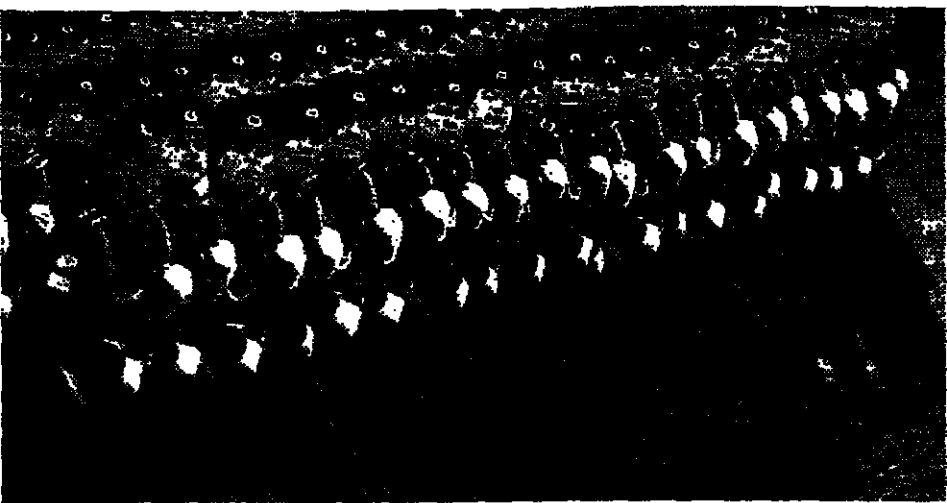
London, 12 & 13 May

This high-level conference will focus on the multi-national attempts to limit market risk, and will provide a broad international perspective of market conditions, how the markets are developing and the management issues of assessing and controlling risk. Speakers include: Martin Vile of the Securities and Investments Board; Jean Seiler, General of the Comptes des Opérations de Bourse, Compting Finance of the Comptes des Opérations de Bourse, Compting Finance of the Bank of England; Dr. Tom Sharpe of Citicorp and Jonathan Davis of BZW Equities.

All enquiries should be addressed to: Financial Times Conference Organisation, 120 Kings Place, London NW1 4LL. Tel: 071-925 2222 (24-hour answering service). Telex: 27347 FTCONF G. Fax: 071-925 2125

A further step towards separatism

The Minsk meeting on the future of the CIS was disunity disguised as co-operation, says John Lloyd



United forces, formerly Soviet and Commonwealth, are inexorably disintegrating

On Saturday, the day after the meeting in Minsk of the heads of state of the Commonwealth of Independent States - a meeting described by the presidents who gave public statements afterwards as "holding co-operation to a higher level" - Russian news agencies reported that "patriotic forces" had met in the city of Nizhny Novgorod to establish a Russian-only organisation to "defend the Russian people".

They also reported that other organisations had met in the same city to hear Mr Gavril Popov, mayor of Moscow, say that the Commonwealth had no future; that the commander of a battalion in Sevastopol was removed from his post by the commander of the Black Sea Fleet for taking an oath of allegiance to Ukraine; that the fighting between Armenians and Azerbaijanis in Nagorno Karabakh grew fiercer and that the president of Azerbaijan, Mr Ayaz Mutalibov - who had left the "constructive" meeting in Minsk early because of the worsening situation in the region - was reported to lead the self-defence forces in Karabakh.

The facts of daily life in the CIS render hollow the declarations of Minsk, as they have all other declarations of the two-and-a-half-month-old body. And though Mr Stanislav Shushkevich, the chairman of the Belarus parliament and the host at the Minsk summit last Friday, bravely tried on Saturday to persuade the delegates that CIS is the structure without which we will never survive, the fact is that soon it will be the survival of the structure itself which will be at stake.

All judgments on the proceedings of the CIS should be preceded by the warning: "as far as can be told". That is because the information put out after the meetings is confused, rhetorical, accompanied by no written declaration or summary of the agreements reached, and with no explanation of what the aims of the meeting were, and how far they were realised.

Within these strict limitations, what seems to have happened at Minsk last Friday was this.

All 11 members of the CIS (the three Baltic states and Georgia - in Minsk as an observer - are not members), from the former Union's 15 states agreed to remain under a unified strategic nuclear command.

Three of the 11 - Azerbaijan, Moldova and Ukraine - have ceased to protest that they will take part in a unified CIS army, and will continue to form their own armies. Two states - Belarus and Uzbeki-

stan - will get out of the CIS united forces as soon as they can. Those left in the unified command for a "transitional period" of two years are Russia, Armenia, Kazakhstan, Kirghizia, Tajikistan and Turkmenistan. The last five are very poor, and getting poorer. They are desperate to hang on to what Russia can offer them in the way of cheaper resources and (especially in the case of Armenia) protection.

The rest was window dressing or technical. There were some 20 agreements on issues such as economics, energy and transportation links and on the army being able to draw its supplies from all participating republics. Officers are to be given guarantees about their ranks within national or unified forces and assurances about housing and wages.

Both what has and what has not been agreed leave vast questions which go to the very root of the Commonwealth - and, more important, to the nature of the independent states themselves. The problems which have arisen from the collapse of the Soviet Union, many of world importance, are so vast and require such courageous and consistent work on their solution that it is no wonder that leaders shrink from them, sign agree-

ments which cannot be honoured and put off until the next meeting (as they have done at every meeting so far) issues which they cannot face. Resolving. According to those present, the proceedings in Minsk lacked structure and preparation and documents which were barely understood were nonetheless signed.

Foremost among the outstanding questions, certainly as far as the world at large is concerned, is the nuclear issue. Though the states have preserved a common line, it remains unclear what their new strategic doctrine is, or, rather, it is clear that such a doctrine does not yet exist.

Any doctrine which did emerge would have to make clear whether the nuclear force protected only the four states which hold the strategic weapons or the entire Commonwealth. Since the weapons are no longer to be targeted on the NATO countries - as Mr Yeltsin has said - new priorities would need to be set. (This is also a matter which, in reverse, the west must resolve for its own nuclear forces.)

It is by no means certain that the member states of the CIS nuclear alliance will always have the same defence interests, particularly now that the Central Asian states are developing links with coun-

tries such as Iran, which may not in future be allies of Russia. By the end of two years, if the statements of Belarus, Kazakhstan and Ukraine are carried through, only Russia will possess nuclear arms of any kind. Any state renouncing weapons would have to be very sure that a nuclear neighbour on its border would not one day dispute it.

More immediately urgent are the effects of the Minsk settlement in the sphere of conventional weapons. Before Mr Yeltsin apparently agreed to form a common defence force with the five other republics, opinion among Russia's parliamentarians, and many of its senior military people, was that Russia must form its own army in order to stop the breakdown in morale and coherence with which the "united" force was faced. Mr Yeltsin was said to be ready to sign a decree on the creation of a separate army; he is now to back away?

After all, what has been agreed is that there should be unity for a two-year period of transition, presumably leading to separate armies. It is difficult to see how and why the instruments for a united force should be forged in a short period during which, simultaneously, the member states will also wish to make prepara-

tions for individual forces.

Even if such a united force can be maintained, there now must be a negotiation (put off to the next CIS summit meeting in Kiev on March 20) on the division of army property to allow those who are leaving to have a basis for their separate forces. This will be highly contentious, especially since Ukraine has a disproportionately large share of tanks and advanced weaponry - a legacy of its forward position in the defence of the former union.

The question of the Black Sea Fleet remains to be settled, largely between Russia and the Ukraine, but necessarily within the context of the Commonwealth since the fleet is formally Commonwealth property. Remarkably, though this has been the main point at issue between Russia and Ukraine for over a month, neither of their presidents, according to Mr Leonid Kravchuk, the Ukrainian president - raised it.

The underlying question is the crudest: can they trust each other? Territorial questions are everywhere being raised and are pored in the national legislatures, much of whose rhetoric is increasingly belittled, as the old pretences of comradeship are stripped away. Economic crisis envelops them all, with no relief in sight. It would be strange if populism and chauvinism did not take root and grow.

Mr Shushkevich was right to say in Minsk on Saturday that the states had better hang together than hang apart, for they are all in desperate straits. Some of the agreements, on the joint maintenance of transportation and energy links are encouraging. But a further protocol agreed to divide the assets of the former state bank, Gosbank, between them - assets which were in part its republican branches and which have any way already become the central banks of the new states. Russia monopolises the supply of money and credit, and has laid claim to the gold. What was needed to continue the operation of a common currency zone was a banking union - but it seems this is no longer even to be attempted.

Minsk, in short, was a further step towards separatism: disintegration badly dressed up to look like co-operation. The Commonwealth has no independent existence or authority. It has only a tiny secretariat and is able to do nothing between brief and ill-prepared meetings. It may be that the former Soviet states will realise that they must co-operate and create a vehicle for doing so. But that moment has not yet come, and is not in view.

Samuel Brittan

Right way to reform the CAP 'reform'



There is something priggish about the claims of British ministers to be more liberal and more free-market than any of their opposite numbers in the European Community although that would not be difficult.

Scepticism is amply justified by the British government's reaction to the MacSharry plan for reforming the Common Agriculture Policy (CAP). The plan is a remarkable attempt by the EC's agriculture commissioner, Mr Ray MacSharry, to decouple payments to farmers from agricultural prices, and thereby to furnish some support for farmers without having to rig the structure of world food markets.

The direction of the MacSharry plan - towards transparency and away from market rigging - is surely one that nearly all government reformers have advocated. Indeed, the commissioner will have his work cut out getting his ideas through meetings of ministers beholden to the farm lobbies.

If he is entitled to support from any government, it is surely the British, which has far and away the smallest proportion of its citizens working on the soil. Yet as recently as last Wednesday, February 12, Mr John Gummer, the British agriculture minister, was pouring cold water on the proposals at - you will never guess - the annual general meeting of the National Farmers Union.

I might as well state - before he dictates a letter to the *Financial Times* - that Mr Gummer's complaint is that income payments will be biased towards the low income farmers, and away from the more prosperous and efficient ones who predominate in British agriculture, and who are influential beyond their numbers among the *admiral* Tories. It would surely be best to welcome the MacSharry proposals and concentrate on the distribution of income support.

The MacSharry proposals do, however, need a different kind of reform. To see why, recall the deficiency payments which

were used to support British agriculture before the UK joined the Community in 1973. The system was less bad than the CAP, because:

- the cost was obvious to the taxpayer, and thus self-limiting, and
- the British consumer paid for imports at world market prices rather than at prices rigged by import levies and the like. Even then, superficial minds argued that the cost of the policy could be reduced by shifting the burden from the taxpayer to the consumer by higher prices - an error known as fiscal illusion.

The exact basis for income payments to farmers is a matter of political haggling to which elementary economics can contribute little. But it can contribute something to the question of whether the payments to the farm or the individual farmers. The Tangemann proposal is to make the payments to existing farmers for a period of, say, 15 years, but to allow the rights to them to be bought and sold.

The accompanying IEA publicity talks about farmers being given lump sum compensation, for instance bonds which might be worth £150,000 for a farm of 240 acres. This is slightly misleading, and could put off finance ministers, whose budgets are based on primitive cash flow concepts. The bonds arise from making the MacSharry payments transferable. All that governments and the Commission need do is to legalise a market.

It is easy to show that the worldwide race to protect farmers is self-defeating, and any benefits go not to working farmers, but to landowners. The land lobby is influential partly because economy-watchers, from finance ministers to economic journalists, are too busy to look more than occasionally at the intricate details of this one particular sector, and fear to trip up over the details. Yet ending the scandal of the CAP could make far more difference to economic welfare than the difference between the worst and the best conceivable annual government budget in Britain, and other Community countries.

* Lord North Street, London.

LETTERS

Accountants' virtues finally recognised

From Mr Ian R McNeil.
Sir, Chartered accountants owe Michael Dixon one (Jobs Column, February 12). At last someone has recognised their inestimable virtues. If I didn't have such a high regard for the ethics and integrity of journalists, I would send him a bottle of something fizzy: I am sure he would appreciate vintage Tizer.

I found it striking to see the degree of overlap between the attributes which the research team found in chartered accountants and those which, I hope, Royal Air Force recruiters are looking for. Calm, even-tempered, inclined to plan ahead, reliable, not impulsive. These are exactly the characteristics which I would pray for in someone flying fast jets in low-level training over my house.

In the letters column of a less serious newspaper than yours, Michael Dixon's story could be the spark for a long series of accountant jokes. I am sure you won't allow that to happen. Just in case, we have all heard the one about the difference between accountants and actuaries, and the one about the accountant advising a man landing by balloon!

Ian R McNeil,
president,
Institute of
Chartered Accountants,
Chartered Accountants' Hall,
Moorgate Place,
London EC3

US stance on shipping ignores spirit of Gatt

From Mr Efthimios Christodoulou.
Sir, I read with interest Frances Williams's report, "EC farm stance seen as biggest threat to Gatt talks" (January 14).

I must note, however, that apart from the well-known problems with agriculture, there are, also, difficulties in other sectors of the negotiations. The attitude of the US with regard to maritime transport is one of great concern to my country - for which shipping is an economic activity of paramount importance - and, I would say, to other maritime countries too.

The US insists on preserving its own right to sign bilateral most favoured nation (MFN) agreements even after a proposed successful conclusion of the Uruguay Round. This approach is by no means compatible with the spirit of the

negotiations and cannot be considered as helpful.

Maritime transport is a sector already liberalised to a great extent. It is then hardly conceivable that, as a result of the Uruguay Round, more restrictions than those existing at the beginning of the negotiations would be imposed on shipping.

If the right of bilateral MFN agreements is to be preserved, and if an effective standstill and a gradual and progressive roll-back are not to be included in the framework of the agreement under negotiation, then the exemption of maritime transport from the Uruguay Round altogether is preferable. At least, in this case, no more restrictions would be imposed on shipping as a result of its "liberalisation".

Efthimios Christodoulou,
Minister of National Economy,
Athens

Ideas for all strands of opinion

From Mr Graham Mather.
Sir, It is unfortunate that your columnist, Joe Rogaly (February 14) said "the IFF is Labour's think-tank in the same way as the Centre for Policy Studies, the Institute of Economic Affairs and the Adam Smith Institute are the Conservatives".

The IEA is independent and puts out ideas which anyone - Conservative, Labour, Liberal

Democrat or whoever - is welcome to pick up. If Joe Rogaly will look around next time he is here, he is very likely to see evidence that our academic, opinion-forming and policy-making guests come from all strands of political opinion. Graham Mather,
general director,
Institute of Economic Affairs,
2 Lord North Street,
London SW1P 3LB

Constraint on teachers' pay

From Mr Maryn Lloyd.

Sir, Your leader, "Fair pay for teachers" (February 11), addresses only one part of the equation in offering competitive salaries to teachers. The main constraint in accommodating an increase of between 5.5 per cent and 8.5 per cent would be the financial resources available to a particular school.

Under the local management of schools (LMS) system, individual schools are funded by a "unit of resource" based on the number of pupils on the roll. In recent years, this has failed to keep in line with the teachers' pay awards, with the consequence that school budgets - delegated to individual schools - are inadequate.

In attempting to come to terms with these budgets schools either have to reduce staff levels or accept a degree of deficit budgeting.

As a result of this pay increase, we surely will be expecting to see more of the practice witnessed in Dorking where parents have been asked to contribute 280 a head to meet the wage bill.

Maryn Lloyd,
1 Dorfield Road,
Buryford,
Surrey GU1 7TY

Fax service
LETTERS may be typed on 071-675 8888.
They should be clearly typed and the
handwritten. Please do not include for
the resolution.

Towards a 'level playing field' in trade and the environment

From Mr Barry Coates.

Sir, I was pleasantly surprised to see your extensive coverage of trade and the environment (February 12). It seems at last that there is a recognition that trade and environment issues are inextricably linked.

However, I felt that the discussion, both in the General Agreement on Tariffs and Trade report and the article, did not adequately address the central issue - that trade rules should treat producers fairly, and create the much sought after "level playing field". An important element in fair trade is that producers should not be able to "dump" their products at prices that are below cost.

Those costs must include the use of environmental services - for example, using nature as a sink (as in waste disposal). If companies do not pay for those services, they are trading unfairly. This is the crucial point that the Gatt report does not address. Under current rules of trade, Gatt allows nations to impose countervailing duties for dumping covering most costs, but does not extend this to environmental dumping. In fact, the rules explicitly do not allow differential treatment of traded products on the basis of their production method.

This leads to environmentally destructive competition and low commodity prices. For

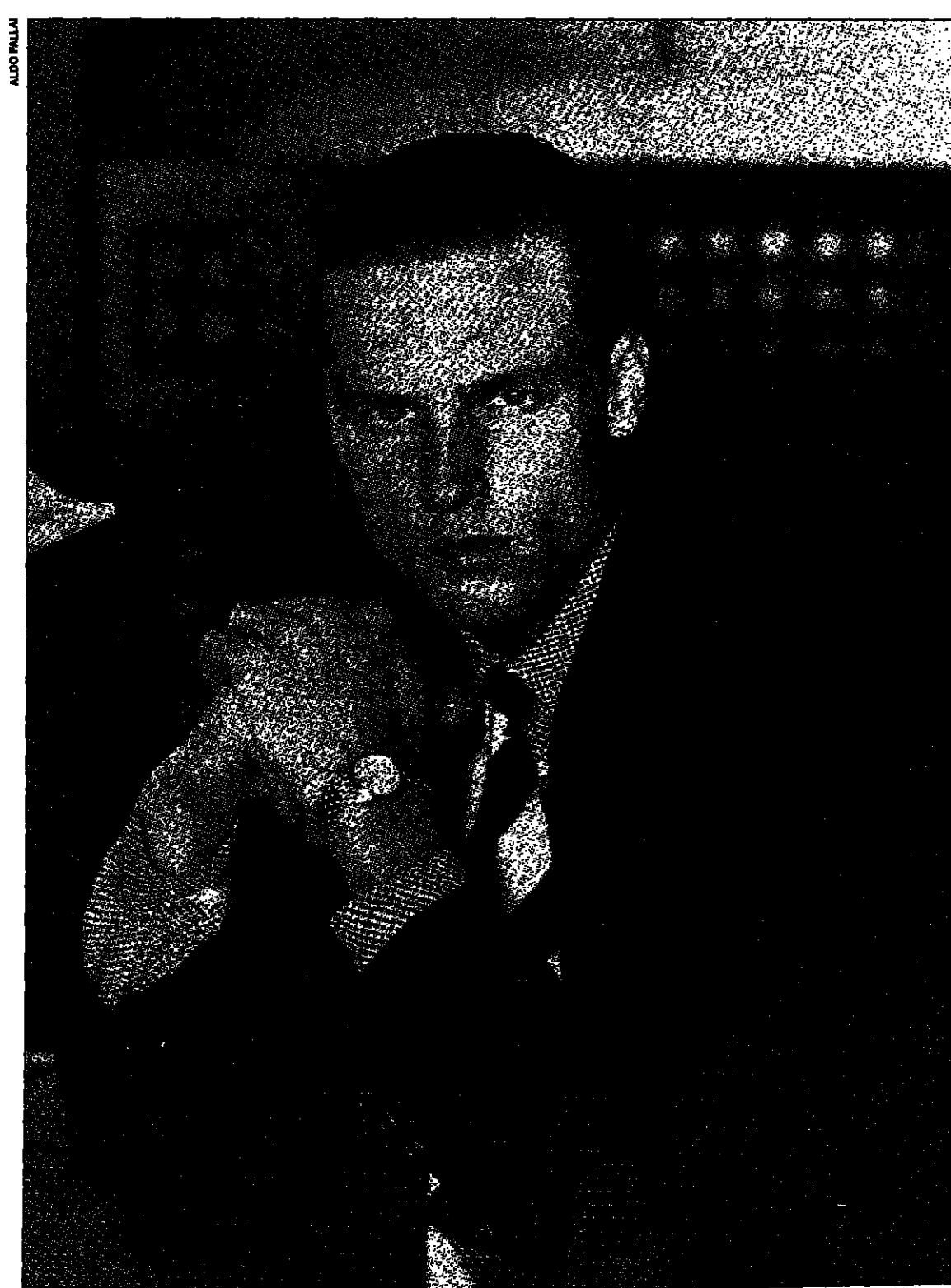
example, timber producers have no incentive to spend money on long-term forest management when their competitors are not required to do so. The result is forest damage, and, in the long run, possible deforestation. National action alone is not sufficient; change in international trade rules is required.

I agree with Gatt that national policies should be the main mechanism to establish environmental policies, but it must be recognised that Gatt needs to play a role in setting up the framework for fair trade between nations. Otherwise, there will be a transfer of polluting industries to developing countries, as suggested in a recent memorandum from the

World Bank's chief economist.

This is not a rabidly protectionist view. Most environmentalists favour the reform of trade rules in the area of agriculture, for example, but, unlike Gatt, we regard sustainable development as the objective, rather than trade liberalisation itself. It is to be hoped that the nations that determine Gatt's rules, including the UK, are also working towards those objectives. We look forward to their support for the long-awaited reform of our international trading system at the Earth Summit discussions in June.

Barry Coates,
head of development policy,
World Wide Fund for Nature
Godalming, Surrey



GIORGIO ARMANI

178, Sloane Street, London

Reuters UK Marketing, 85 Fleet Street, London EC4P 4A.

COMPANIES AND FINANCE

Hibernia work capped while investors sought

By Bernard Simon in Toronto

THE THREE remaining partners in the Hibernia oil project off the coast of Newfoundland have put a brake on construction work while they seek new investors for the C\$5.2bn (\$2.48bn) venture.

The move followed the decision by Gulf Canada Resources to abandon its 25 per cent stake in the project, Gulf, controlled by Olympia & York Developments, developers of the Canary Wharf in London, said last month that it needed to conserve resources for higher priorities.

The field was originally expected to produce 110,000 barrels of oil a day by 1996, but the slowdown will delay completion until 1997 at the earliest. The federal and Newfoundland governments are contributing about half the cost of the project, but Hibernia's long-term viability depends on an increase in oil prices.

The remaining shareholders, Mobil Canada, Chevron Resources Canada and Petro-Canada, said no new contracts would be signed from this week and most work already under way would be slowed down. Work on the concrete gravity base for the production platform would be stopped immediately.

The slowdown will affect Canadian as well as foreign suppliers. Wimpey is among the companies which have been told to halt work. About 70 jobs will also be lost at a design office in Paris.

The three remaining partners have appointed Goldman Sachs and Wood Gundy to find a replacement for Gulf. However, Petro-Canada has also indicated that it would like to reduce its stake.

Receiver in last ditch effort to fly Compass

By Bruce Jacques in Sydney

THE receiver of Compass, the failed Australian domestic airline, Mr Ian Ferrier, announced what appeared to be a last ditch effort to get the company flying again.

Mr Ferrier told a Sydney press conference that another fledgling local airline, Southern Cross, was negotiating to take a 75 per cent stake in Compass and inject about A\$90m (\$25m). He has given Southern Cross two weeks to cement a deal.

The airline crashed into receivership late last year, stranding about 125,000 holiday season ticket holders. Mr Ferrier has estimated Compass is facing a A\$171m deficiency in funds if it is liquidated and a A\$45.2m deficiency as a going concern.

The difference largely reflects the company's liability to ticket holders and aircraft lessors.

Ciments Français falls 59%

By Alice Rawsthorn in Paris

CIMENTIS Français, the French cement company which is one of the world's largest cement groups, announced profits for 1991 down by 59 per cent to FF400m (\$40.94m) against FF980m in 1990.

News of the profits fall comes at a turbulent time for the French construction industry, which has been badly

affected by the slowdown in the economy. It follows shortly after last week's announcement of an agreed FF4.6bn takeover bid by the Fougereille building group for Société Auxilière d'Entreprises (SAE).

Despite the slowdown Ciments Français did manage to increase sales by 6.5 per cent to FF16.5bn in 1991.

Chelsfield plans to go public

By Michio Nakamoto

CHELSEFIELD, the private property group headed by Mr Elliott Bernard, is planning to go public within four to six months either through a flotation or a reverse takeover of a quoted company.

The plans to seek a listing on the stock market emerged as speculation spread in the City about the financial well-being of the group.

The speculation centred on the demerger of Pall Mall, the joint venture vehicle for the assets of Laing Properties, which Chelsfield acquired with P&O for £492m in April 1990.

This will require an injection of £250m into the joint venture from which it will acquire half the UK assets and a 50 per cent stake in the US assets, Mr Bernard said. The Canadian properties will be acquired by P&O.

Mr Bernard confirmed that Chelsfield has already made arrangements to satisfy the cash injection through senior lending with banks of between £100m to £120m, a further £50m to £60m of loan stock with equity rights and the remainder coming from an equity placing.

Mr Bernard also confirmed that the demerger of Pall Mall would be conditional on the repayment of a £340m non-recourse loan made to the joint venture.

Following the placing, Chelsfield will have £260m of gross assets, £120m of senior debt and £60m of subordinated loan stock. Gearing would be at about 33 per cent, excluding the loan stock.

Mr Bernard, who will retain about 50 per cent of the enlarged share capital, said that the preferred route for the company in going public was through a reverse takeover.

There were "a good half a dozen situations" among listed property companies that have lost their way in terms of stock market recognition, are undervalued and provide a good opportunity for Chelsfield to reverse into.

Mountleigh, which Chelsfield has been rumoured to be interested in for some time, was a very good example of such a company, Mr Bernard said.

Era ends as Leopoldo Pirelli gives up executive power

By Haig Simonian in Milan

MR LEOPOLDO Pirelli, 66, chairman of Pirelli, the loss-making Italian cables and tyres concern, is giving up executive powers in the company established by his grandfather 120 years ago.

Management control is going to a seven-member executive committee.

The group includes Mr Marco Tronchetti Provera, 44, Mr Pirelli's son-in-law, who has emerged as the company's new driving force. Mr Tronchetti Provera, already one of two managing directors, has now been named executive deputy chairman.

Mr Pirelli will remain chairman, but concentrate on liaison between Pirelli and Societe Internationale Pirelli and Pirelli & C, the two financial holding companies which control it.

The termination of direct Pirelli family control over the company ends an era in Italian family capitalism.

Although Mr Pirelli's son, Alberto, 38, remains one of three deputy chairmen, Mr Tronchetti Provera's steady rise has left him increasingly



Leopoldo Pirelli: staying on as chairman

sidelined in recent months.

The management changes represent further fallout from last year's abortive takeover bid for Continental. Pirelli's slightly bigger German rival. The costs of that bid, notably the secret financial guarantees given to Pirelli's allies, account for around half its forecast 1990 (£320.63m) loss for 1991.

Despite calls for changes at the top, Mr Pirelli had stressed

his intention to stay in charge. The change now, on the eve of a £519bn rights issue to buttress the group's shaky finances, will end speculation about his future.

The arrival of a younger generation of management not tainted by the Continental affairs should also help to restore shareholders' confidence.

There has been growing concern in recent weeks about Pirelli's vulnerability to a takeover following reports of sustained purchases of shares in Pirelli itself and in the two holding companies. Although theoretically immune to a bid thanks to its complex structure, the rumours have raised doubts about the company's future.

Mr Tronchetti Provera is believed to have been firmly against the Continental takeover and to have watched with increasing dismay as it foundered. His family is one of the core shareholders in Pirelli, with a 5.6 per cent stake in Pirelli & C, the ultimate holding company.

Observer, Page 14

Trilon Financial profits boosted to C\$109m for year

By Robert Gibbons in Montreal

TRILON Financial, a key holding company of the Peter and Edward Bronfman interests of Toronto, posted a sharp jump for 1991 profits because of better results by its financial services and property management affiliates.

Earnings were C\$109m (\$52.1m) or 74 cents a share, up from C\$89m a year earlier on revenues of C\$5.7bn against C\$5.2bn.

London Insurance, one of Trilon's two biggest holdings, contributed C\$58m, unchanged, and Royal Trustco returned to profitability.

Its earnings of C\$107m included C\$21m from an asset sale and its dividend is still not covered fully by profits.

Moody's is reviewing Royal Trustco's long-term debt and may lower its rating. "The review will focus on long-term earning capacity in relation to potential asset quality problems," said the agency in New York.

RT carries a single A-3 rating on its senior debt. Moody's

also pointed to the impact of the recession in Ontario on RT's domestic business.

Senior RT management told analysts in Toronto this week that the company's high level of non-performing loans in the past two years was due to the north America and UK recession.

DBRS, one of Canada's two credit agencies, lowered its rating on O&Y First Canadian Place debt from A-high to single A.

The company owns the Relchmann Brothers flagship Toronto office complex, which now has a 28 per cent vacancy rate.

DBRS also reduced ratings on the bonds of several upper Olympia & York Developments subsidiaries.

Newman Tonks

Newman Tonks open offer of 13m new ordinary was taken up as to 10.4m by shareholders (79.93 per cent).

Telecommunications busy in merger activity

Telecommunications was a busy sector for international merger and acquisition activity last week, writes Brian Bullen. Telefonica de Espana's purchase of 80 per cent of Telefonica de Espana, the Commonwealth of Puerto Rico-owned long distance carrier, consolidates its position in Latin America at a time of intensifying competition among global long distance carriers.

The asset-pooling joint venture between Motorola of the US and Northern Telecom of Canada is aimed at stepping up competition in the cellular telephone sector. American Telephone and Telegraph said its joint venture with a St Petersburg-based company was only a small part of its plans to develop Russia's telecommunications and improve the infrastructure there and eastern Europe.

Northumbrian Water is continuing the trend for diversification by the UK's privatised water companies. It described its joint venture agreement with Spanish construction company Obracon as a significant step forward for its activities in Spain, where it has been providing river cleaning expertise for several years.

After a series of non-core disposals, Imperial Chemical Industries started buying again. Its bolt-on acquisition of Barnevalis, a Barcelona-based maker of vehicle repair paints, will fill a gap in its southern European markets. Also bolting on was Allied-Lyons, which acquired the Michigan-based Dawn Drouin chain.

BIDDER/INVESTOR	TARGET	SECTOR	VALUE	COMMENT
Motorola (US/Northern Telecom) (Canada)	Motorola-Northern Communications (JV)	Telecoms	\$110m	Sector competition bids up
Telefonica de Espana (Spain)	Telefonica Larga Distancia (Punto Rico)	Telecoms	\$79m	In search of synergies
Cap Gemini Societ (France)	Programator (Sweden)	Computer services	\$48m	Agreed bid
Alcoa (US)	Koforn (Hungary)	Aluminium products	\$28m	Controlling interest sought
Seaboard International (UK)	Consilium CMH (Sweden)	Materials handling	\$21.4m	Long term growth move
BTP (UK)	Lambiotto/TRL (both France)	Adhesives	\$8.9m	Completing European jigsaw
Citizen Watch (Japan)	G Boley (Germany)	Machine tools	\$4.5m	First foreign acquisition
Ash & Lacy (UK)	Galvanisation de L'Artois (France)	Galvanising	\$1.7m	Third such buy
Northumbrian Water (UK)/ Obracon (Spain)	Obracon Northumbrian (JV)	Water supply	n/a	Seed corn move
Imperial Chemical (UK)	Cemosa Ostrava (Czechoslovakia)	Cement	n/a	Italian cement position

Source: FT Mergers & Acquisitions International

NEWS DIGEST

Newmarket Venture assets up

NEWMARKET Venture Capital had a net asset value of 80p at December 31, its year-end. At the end of 1990 the figure stood at 56p.

The company has a portfolio of venture capital investments in the UK and the US. These are currently being realised and, as has previously been noted, it is proposed that the company is wound up voluntarily and the assets distributed to shareholders in 1994.

The company added that it does not take realised gains on its successful investments into the profit and loss account and it does not normally expect to pay ordinary dividends.

The p&l merely reflects deposit and investment income and the running costs of the company.

Pre-tax losses were cut to £776,000 (£1.25m) and losses per share to 2.1p (3.4p).

SW Wood open offer result

SW Wood said that of its open offer of 3.91m new ordinary shares 661,875 were placed. The firm, £82m were taken up by shareholders and the balance of 1.73m would be allotted.

GT Venture net asset value 124.4p

Net asset value per share of GT Venture Investment Co stood

at 124.4p on December 31 compared with 126p a year earlier and 144p at the June 30 year-end.

Pre-tax profits for the six months advanced to £371,000 (£346,000) and earnings per share worked through at 1.85p (1.49p) basic and 0.72p (0.7p) fully diluted.

Anglo & Overseas assets rise over year

The net asset value of Anglo & Overseas Trust was 317.3p at December 31, a rise of 18.5 per cent over the 267.7p of a year previously and a fall of 3.3 per cent from the 328.2p reported at June 30.

Net revenue for 1991 slipped to £7,35m (£7.66m). Earnings emerged at 6.36p (6.64p) and the final dividend is lifted to a proposed 4.7p (4.4p), for a total of 6.46p (6.15p).

Petrocon claims 34% of Wilkes

Petrocon Group now owns or has received indications of support amounting to some 34 per cent of James Wilkes ordinary equity.

The figure includes Petrocon's purchase on Thursday of 330,000 Wilkes ordinary shares.

Porvair in medical buy

Porvair is acquiring all the preference shares and 75 per cent of the ordinary shares of Polytronics, a maker of medical diagnostic devices.

Consideration is £300,000 cash and Porvair may obtain the remaining stake for up to £2m depending on profits.

Redland offer timetable extended

The Takeover Panel has further extended its timetable regarding Redland's offer for the primary and preference share capitals of Stetley.

With no news forthcoming from the secretary for trade and industry as to whether the bid would be referred to the

Monopolies and Mergers Commission, the Panel's view was that the timetable should be further extended.

It will review the matter of the timetable again if there is no announcement by the trade and industry secretary by March 12.

GHANA COCOA BOARD IRRADIATION OF GHANA COCOA

The Ghana Cocoa Board's attention has been drawn to a Press Release purported to have been issued by an official of the Quality Control Department on the subject that Ghana Cocoa can now be efficiently preserved against pests, germs and viruses for two years through the use of irradiation without quality deterioration and still safe for human consumption.

The report further states that irradiation method is to be used to withhold cocoa from the market, and that the Government has put up a special building for this purpose with bigger irradiation plant donated by the International Atomic Energy Agency.

Cocobod wishes to categorically deny the above claim.

The Board is aware of an experimental work going on at the Ghana Atomic Energy Commission on the application of irradiation for the preservation of food (fish and other agricultural produce) and for sterilization of drugs and other medical supplies but not cocoa.

The Board is also aware of the ability of the radiation technologies; but neither the Board nor the Government of Ghana has taken any policy decision on their use. Cocobod therefore continues and will continue with its traditional quality control methods of preservation which ensure premium quality cocoa that is accepted by all our customers and safe for all consumers.

We in Cocobod are aware of the possible hazards posed by the irradiation methods and will not undertake any preservation methods that could be detrimental to the health of our partners and consumers.

D.K. ANINAKWAH
CHIEF EXECUTIVE
GHANA COCOA BOARD
COCOA HOUSE
P.O. BOX 933
ACCRA - GHANA

BESWORLD

NOTICE OF REDEMPTION

US\$ 100,000,000
10% per cent. Depository Receipts due 1999
(the "Receipts")

Issued by The Law Debenture Trust Corporation p.l.c.
evidencing entitlement to payment of principal and interest
in respect of a deposit with

Banca Commerciale Italiana (the "Bank")
(Hong Kong Branch)

Notice is hereby given that in accordance with Condition 4 (b) of the Receipts, the Bank will redeem all of the outstanding Receipts on March 10, 1992 at their principal amount.

Repayment of Principal will be made on or after March 10, 1992 upon presentation and surrender of the Receipts, at the offices of the Paying Agents listed below.

The Receipts should be presented for payment together with all un-matured coupons. Where any Receipt is presented for payment without all un-matured coupons pertaining thereto, redemption will only be made against the provision of such indemnity as the Bank may reasonably require.

On March 10, 1992, un-matured coupons shall become void and no payment shall be made in respect thereof.

Receipts and Coupons will become void unless presented for payment within the period of twelve years from the Redemption Date in the case of the Receipts and six years in the case of the Coupons.

Principal Paying Agent

Kreditbank S.A. Luxembourg
43 boulevard Royal
L-2955 Luxembourg

Paying Agents

Kreditbank N.V.
Arenbergstraat 7
B-1000 Brussels

Kreditbank (Suisse) S.A.
7, boulevard Georges-Favon
CH-1211 Geneva 11

Kreditbank N.V.
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City Tower Level 7
40 Basinghall Street
London EC2V 5DE

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Banco Di Napoli International S.A.
U.S. \$150,000,000
Floating Rate Subordinated Notes due 1997
For the six months 14th February, 1992 to 14th August, 1992 the Notes will carry an interest rate of 5 1/4% per annum with a coupon amount of U.S. \$265.42 per U.S. \$10,000 Note, payable on 14th August, 1992.
Banco Di Napoli International S.A.
Company, London Agent Bank

Mitsui Taiyo Kobe Bank (Luxembourg) S.A.
U.S. \$50,000,000 10 1/4% per cent. Guaranteed Bonds due 1999
Notice is hereby given that, in accordance with Condition 6(c) of the Terms and Conditions, the above-captioned Bonds will be redeemed at their principal amount on 23rd March, 1992.
By: Mitsui Taiyo Kobe Trust International Limited (Fiscal Agent)
17th February, 1992

COMMERZBANK OVERSEAS FINANCE N.V. U.S. \$200,000,000 Floating Rate Notes Due 1993

In accordance with the provisions of the Notes notice is hereby given that for the six months period from February 14, 1992 to August 14, 1992 the Notes will carry an interest rate of 4.0625% per annum with a coupon amount of U.S. \$205.38 per U.S. \$10,000 Note and U.S. \$5,194.56 per U.S. \$250,000 Note payable on August 14, 1992.

Frankfurt/Main, February 1992

COMMERZBANK

The Chase Manhattan Corporation U.S. \$250,000,000

Floating Rate Subordinated Notes due 2000
For the three months 18th February, 1992 to 18th May, 1992 the Notes will carry an interest rate of 5% per annum with a coupon amount of U.S. \$125.00 per U.S. \$10,000 principal amount, payable on 18th May, 1992.
Bankers Trust Company, London Agent Bank

U.S. \$250,000,000 Floating Rate Subordinated Capital Notes due August 1996 CITICORP

Notice is hereby given that the interest payable on the relevant Interest Payment Date, February 24, 1992, for the period November 14, 1991 to February 14, 1992 against Coupon No. 30, in respect of U.S. \$50,000 nominal of the Notes will be U.S. \$670.84.
February 18, 1992, London
By: Citibank, N.A. (Citi Dept.), Agent Bank CITIBANK

LEGAL NOTICES

The Trade Marks set out below were assigned on 3rd September 1990, by: COOK BATES COMPANY, INC. to: LRC NORTH AMERICA, INC.

WITHOUT THE GOODWILL OF THE BUSINESS IN THE GOODS FOR WHICH THE TRADE MARKS ARE REGISTERED.
TRADE MARK NO. MARK COSMETIC SPECIFICATION
80788 NAIL FILES, NAIL CLIPPERS, AND NAIL PRESSURE BUREAU HAND IMPLEMENTS INCLUDED IN U.S. 8
80875 COSMETICS AND NON-COSMETIC TOILET PREPARATIONS, ALL FOR THE EYELASHES.
1091546 KOUR-LASH

COMPANIES AND FINANCE

Krupp shares to be traded on market for first time

By Christopher Parkes in Bonn

SHARES in Fried. Krupp, the German steel and engineering group, are to be traded on the open stock market this summer for the first time in the company's 181-year history.

The notation follows a decision by the group's supervisory board on Saturday to convert the group - of which 75 per cent is held by the Alfred Krupp foundation and 25 per cent by the German government - into an *aktiengesellschaft*, or public limited company.

Fried. Krupp AG will serve as the umbrella organisation controlling the combined operations of the existing Krupp businesses and those of Hoesch, soon to be merged with Krupp.

Some of the shares are expected to be used in swaps deals to pay for the outstanding 49 per cent of Hoesch stock still not in Krupp's hands.

A majority, however, will remain under the control of the Krupp foundation - established in July 1987 - making the group virtually immune to takeover challenges.

The Krupp plan followed a decision by the Hoesch supervisory board last Friday not to obstruct the merger, which is expected to produce cost savings of DM300m (\$184.2m) a year for the next five years, and a DM450m annual "positive contribution to results" from 1990 onwards.

Krupp, founded in 1811 as a "manufacturer of English cast steel", first became a stock corporation in 1903. However, Ms Bertha Krupp, the founder's granddaughter, owned all but four shares.

The group was converted

back to sole family ownership during the second world war, when the group was known abroad as Hitler's armorer.

Once known only for its steel and weapons manufacture, it has since become a diversified business with more than 200 subsidiaries and annual sales last year of DM15.6bn.

At present, steel accounts for 50 per cent of turnover, with engineering and plant-making contributing DM5.5bn, trading operations a further DM2bn and electronics some DM700m.

The merger with Hoesch will make the group the second biggest German steelmaker after Thyssen, and also offer synergies in motor components and other engineering sectors.

Krupp's switch to PLC status is likely to be completed in March and first trading in the shares is expected in August.

Echo Bay reduces target for gold output this year

By Kenneth Gooding, Mining Correspondent

ECHO BAY Mines, one of North America's biggest precious metals mining groups, has set 1992 targets which will see gold output fall and cash production costs rise.

The Toronto-based company has set a production target of 700,000 troy ounces of gold this year, down from 733,900 in 1991, which in turn followed a 10 per cent drop from the 1990 level.

The cash cost target is \$255 an ounce compared with \$249 last year and \$244 in 1990.

Echo Bay plans to lift capital expenditure from \$50m to \$65m this year but exploration spending will be \$5m, only half the 1990 level and down from \$8m last year.

Silver output is targeted to jump from 5.6m ounces last year to 8m ounces in 1992. In 1990 silver production was just over 2m.

Echo Bay announced its 1992 targets at meetings in Europe and North America after revealing net earnings for 1991

were \$6.8m, or 0.07 cents a share, compared with a net loss of \$59.7m, or 60 cents, in 1990 when the company wrote off two investments.

Revenues fell to \$315.6m from \$338.9m reflecting lower gold prices and production. The average price realised by Echo Bay for gold was \$392, down from \$404.

The company has hedged 109,200 ounces of 1992 gold production at an average of \$397 an ounce and 3.7m ounces of 1992 silver at \$4.45. Prepayment of loans reduced Echo Bay's hedged position and the company has chosen not to lock in present "low" prices by making any additional forward sales. Gains of \$3.2m from 1991 pre-payments of gold and silver loans will be recognised in 1992 earnings.

Echo Bay's proven and probable reserves at the end of 1991 totalled 12,833m ounces of gold, against 12,482m the previous year, and 116,994m ounces of silver, against 135,881m.

Jacobs offers SFr34.6m for rest of Allgemeine

By Ian Rodger in Zurich

MR Klaus Jacobs, formerly head of the Jacobs Suchard coffee and chocolate firm, has offered SFr34.6m (\$23.5m), or SFr300 a share, to the minority shareholders of Allgemeine Finance, in a move to buy the remaining 49 per cent of the Zurich investment holding company. The price is much lower than what he paid last March in acquiring just over 50 per cent of the company.

Union Bank of Switzerland, which advised Mr Jacobs on the transaction, said the offer reflected the recent market price for the shares, which traded on Monday at SFr300.

UBS also pointed out there was a put option, providing shareholders with the option of selling the shares for SFr390 after April 8, when the main offer expires, and up to June 30, 1994. It expected many shareholders would take this option.

Mr Jacobs bought a 50.1 per cent stake of Allgemeine from a subsidiary of UBS for SFr32.7m, or about SFr430 a share. At the time, the shares were trading at about SFr400.

He has since raised his stake in the company to 82 per cent.

Analysts said this was not the first time that Mr Jacobs had been associated with discrepancies in prices offered to majority and minority shareholders. In July 1990, many institutional shareholders in Jacobs Suchard complained that the offer by Philip Morris to minority shareholders was much lower than that offered to Mr Jacobs for the majority.

Switzerland has no effective code to protect minority shareholders' rights in the event of takeovers.

Allgemeine said its net income in 1991 had jumped to SFr13.4m from SFr7.5m in 1990. Total assets rose to SFr91.7m from SFr65.3m.

Asset value per share jumped to SFr448 at the end of 1991 from SFr378 a year earlier, because the company changed its strategy and sold off many of its investments at a profit.

An unchanged dividend of SFr15 a bearer share, as well as a one-time bonus of SFr5 reflecting the good results, will be paid.

Telelobe net profit triples to C\$12m

By Robert Gibbins in Montreal

TELELOBE, the sole Canadian overseas telecommunications company, tripled net profit in the final quarter of 1991 on a 30 per cent gain in revenue. Management control of Telelobe passed to BCE earlier this month in a boardroom fight.

The strength came from the overseas telecommunications business. Telelobe also operates subsidiaries in data communications equipment and systems.

Fourth-quarter net was C\$12m (US\$10.2m), or 26 cents a share, up from C\$3.1m, or 8 cents, in the year-earlier quarter. Revenues were C\$129m, against C\$107m.

For the full year, Telelobe earned C\$42.7m, or 54 cents a share, up from C\$32m, or 20 cents, in 1990.

Peoples Credit Jewellers of Toronto, which controls the troubled US Zale retailing group, posted a loss of C\$12.5m, or C\$0.92 a share, in the nine months ended 28 December, 1991.

The result included a special charge of C\$187m on its Zale investment. Zale has filed for bankruptcy protection.

Sorin Biomedica agrees to acquire Pfizer division

By Haig Simonian in Milan

SORIN Biomedica, the stock market quoted subsidiary of Italy's SNIA-BPD textiles and munitions group, is buying the Shiley artificial organs division of Pfizer, the US drugs group, for \$230m.

The deal will be largely financed by a one-for-one rights issue by Sorin Biomedica, which will raise around £218m (\$178.4m) through the issue of 72.8m new shares, priced at £3.00 each.

Sorin Biomedica heads the expanding bio-engineering activities of SNIA-BPD, which is controlled by the Fiat group. Shiley, based in California and with production facilities in Germany and Italy, has around 1,900 employees and expects sales of more than £200m this year. Most of its products are used in heart surgery.

The acquisition will boost Sorin Biomedica's turnover to over £700m this year, from £444m in 1991. It will lift the contribution of the bio-engineering division to around 30

per cent of total group sales.

Sorin Biomedica has been expanding rapidly in recent years through a number of acquisitions, which have consolidated its position as a leading producer of specialty drugs and high-technology items for surgical and medical uses.

Olivetti, the office equipment maker, yesterday signed a letter of intent with the Italian government and trade unions to cut its workforce by 1,500 after a month and a half of negotiations. AP-DV reports from Milan.

The agreement fell far short of Olivetti's initial plans, announced last month, to cut its payroll by 2,200. Olivetti has launched a company-wide restructuring plan in an effort to trim costs and maintain competitiveness despite the slump in the European computer market.

Olivetti said last week it expected to post a consolidated 1991 loss of at least £200m.

Visa expects fraud losses to nearly double

By Alan Friedman in New York

VISA International, one of the two leading US credit card companies, yesterday said it was seeking new ways to detect card fraud as the level of worldwide losses from counterfeiting appears likely to nearly double in the current fiscal year.

Visa said yesterday it expected worldwide counterfeit losses to increase to more than \$100m in the financial year that ends this March 31; the level in the 1990-91 year was \$55m.

If the fraud losses continue to increase at the present rate, losses could exceed \$175m next year, the company said.

To combat fraud, Visa said it was developing an early-warning system that would analyse card-usage patterns on all daily transactions over a certain amount. This system, which Visa christened the "transaction analysis system", is intended to identify quickly probable counterfeit transactions.

Watchdog again postpones Hyundai fundraising issues

SOUTH Korea's Securities Supervisory Board (SSB) has decided to postpone for the sixth time applications by two subsidiaries of Hyundai, one of the country's leading conglomerates, to raise funds on the Seoul stock market, Reuters reports from Seoul.

Hyundai Precision Industries and Hyundai Wood Industries have since July and August, respectively, sought approval to raise a total of Won87.7bn (\$90m) through rights issues on the local stock market.

The SSB said it delayed approval because the group had violated government advisory rules on financial management.

Last year, the government instructed big shareholders not to sell large amounts of stock so as to help the ailing market.

However, Mr Chung Juyung, founder and ex-honorary chairman of Hyundai, had subsequently sold large stakes in the two companies, the SSB said. The companies would have to wait another month for an approval, it added.

Stockbrokers said the news sparked heavy selling of Hyundai's shares. A letter of appeal to the SSB also depressed investors, reflecting concern over a possible credit crunch for Hyundai.

Daily News credit approved

THE New York Daily News, one of the last Mr Robert Maxwell's crumbling empire, has secured approval from the US bankruptcy courts for a \$10m credit line to normalise operations while a buyer is sought, writes Patrick Harvey in New York.

The News and its numerous creditors reached a funding

agreement with Sterling National Bank & Trust, which earned from the deal the right to be the first of the newspaper's creditors to receive repayments. The deal is believed to have given the newspaper's reorganisation committee more room to put together a plan to rescue the struggling tabloid from bankruptcy.

The \$10m credit line allows the News some breathing space. It will now be able to pay some suppliers and continue normal credit practices while considering offers from potential buyers.

Among those to have expressed interest are Mr Peter Kalikow, the millionaire property developer who owns the New York Post, a rival tabloid. Mr Kalikow, who filed for personal bankruptcy last year, revealed last Thursday that he was preparing an offer for the News.

This advertisement is issued in compliance with the requirements of the International Stock Exchange of the United Kingdom and the Republic of Ireland Limited (the "Stock Exchange") and does not constitute an invitation to any person to subscribe for, or purchase, any preference stock.



Bank of Ireland

The Governor and Company of the Bank of Ireland
(Established in Ireland by Charter in 1783, and having limited liability Registered in Ireland No. C-1)

Placing by

Salomon Brothers International Limited
Hoare Govett Corporate Finance Limited
J & E DavyUp to 5,000,000 Units of Non-Cumulative
Sterling Preference Stock, Series A
Up to 6,500,000 Units of Non-Cumulative
Irish Pound Preference Stock, Series A

The Sterling Preference Stock has a nominal value of £1.00, carries a liquidation premium of £9.00, will be issued at a price of £10.0111 and carries a gross dividend entitlement of £1.2625 per annum. The Irish Pound Preference Stock has a nominal value of IR£1.00, carries a liquidation premium of IR£9.00, will be issued at a price of IR£10.0976 and carries a gross dividend entitlement of IR£1.20 per annum.

Application has been made to the Stock Exchange for the Preference Stock to be admitted to the Official List in London and Dublin. It is expected that listing will become effective and dealings will commence on 21st February, 1992.

Listing Particulars dated 14th February, 1992 relating to Bank of Ireland will be included in the Companies Fitch Service available from Eitel Financial Limited, Fitzroy House, 13-17 Epworth Street, London EC2A 4DL from 15.00 hours on the 18th February, 1992 and may be obtained during normal business hours by collection only until and including 19th February, 1992 from the Company Announcements Office of the London Stock Exchange, Old Broad Street, London EC2N 1HD and until and including 20th March, 1992 from:

Bank of Ireland,
Lower Baggot Street,
Dublin 2Salomon Brothers International Limited,
Victoria Plaza,
111 Buckingham Palace Road,
London SW1W 0SB

17th February, 1992

This advertisement is issued in compliance with the requirements of the London Stock Exchange. It does not constitute an invitation to subscribe for or purchase any shares. Application has been made to the London Stock Exchange for admission to the Official List of all the Zero Dividend Preference Shares, Income Shares and Capital Shares of M&G Recovery Investment Trust P.L.C. It is expected that listing will become effective and that dealing will commence separately for all the Zero Dividend Preference Shares, Income Shares, Capital Shares, Package Units and Geared Ordinary Units on Friday, 3rd April, 1992.

M&G Recovery Investment Trust P.L.C.

Offer for Subscription of Package Units at 100p and Tender Offer of Component Shares

Sponsored by
S.G. Warburg Securities

The Offers comprise in aggregate up to 995 million Package Units consisting of 995 million Zero Dividend Preference Shares of 1p, 995 million Income Shares of 1p and 995 million Capital Shares of 1p

The number of Shares being offered has deliberately been fixed at such a level as to minimise the possibility of having to scale down applications. Accordingly, the number of Shares being offered should not be assumed to be indicative of the number of Shares which will be allotted.

Authorized	SHARE CAPITAL		Issued, and to be issued, fully paid
No. of Shares million	£		No. of Shares million
995	9,950,000	Zero Dividend Preference Shares of 1p each	9,950,000
995	9,950,000	Income Shares of 1p each	9,950,000
995	9,950,000	Capital Shares of 1p each	9,950,000
	29,850,000		29,850,000

*on the basis that the Offers are fully subscribed

M&G Recovery Investment Trust P.L.C. is a new split capital investment trust to be managed by M&G Investment Management Limited. The underlying objective of the Company will be to invest in shares of companies which show potential for recovery but are going through a difficult period.

Listing Particulars relating to the Company and containing an application form for Package Units available under the Offer for Subscription will be included in the Companies Fitch Service available from Eitel Financial Limited, 37-45 Paul Street, London EC2A 4PL from 5.00 p.m. on 17th February, 1992. Copies of Listing Particulars will be available during normal business hours on any weekday (Saturday and public holidays excepted) up to and including 27th March, 1992 from:

M&G Recovery Investment Trust P.L.C.,
Three Clays
Tower 118
London EC3R 9BBS.G. Warburg Securities
1 Finsbury Avenue
London EC2M 2PANational Westminster Bank PLC
Registrar's Department
New Issues Section
15 Finsbury Street
London EC2Y 8DS

Copies of the Listing Particulars are also available from certain regional branches of National Westminster Bank PLC, details of which can be obtained by telephoning M&G on 0245-546345 and for collection only from the Company Announcements Office, the London Stock Exchange, London Stock Exchange Tower, Capital Court Entrance, off Bartholomew Lane, London EC2, up to and including 19th February, 1992. Most Prospectuses will be available from 17th February, 1992 and copies can be received by telephoning M&G on the above number.

Applications in the Tender Offer must be submitted through eligible Bidding Participants. Individuals who wish to participate in the Tender Offer should contact their personal financial adviser. If necessary, information on financial intermediaries who are Bidding Participants and are prepared to make bids on behalf of parties who are not their existing clients may be obtained by telephoning M&G on 0245-546345.

17th February, 1992

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SAS Manchester 061 499 1441, SAS Aberdeen 0224 770220.

Notice of Redemption to the holders of

International Standard Electric Corporation

12% Sinking Fund Bonds Due 1996

NOTICE IS HEREBY GIVEN, that pursuant to the provisions of the Indenture dated 15th March, 1984 (the "Indenture"), between International Standard Electric Corporation and Bankers Trust Company, Trustee, that \$13,740,000 principal amount has been selected by the Trustee for Redemption on 15th March, 1992 and payable on 16th March, 1992 at the principal amount thereof in accordance with the Sinking Fund provided for in Section 3.06 of the Indenture.

The following are the serial numbers of the Bonds which will be redeemed in whole:

1188	2488	3888	4888	5888	6888	7888	8888	9888	10888	11888	12888	13888	14888	15888	16888	17888	18888	19888	20888	21888	22888	23888	24888	25888	26888	27888	28888	29888	30888	31888	32888	33888	34888	35888	36888	37888	38888	39888	40888	41888	42888	43888	44888	45888	46888	47888	48888	49888	50888	51888	52888	53888	54888	55888	56888	57888	58888	59888	60888	61888	62888	63888	64888	65888	66888	67888	68888	69888	70888	71888	72888	73888	74888	75888	76888	77888	78888	79888	80888	81888	82888	83888	84888	85888	86888	87888	88888	89888	90888	91888	92888	93888	94888	95888	96888	97888	98888	99888
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1196	2496	3896	4896	5896	6896	7896	8896	9896	10896	11896	12896	13896	14896	15896	16896	17896	18896	19896	20896	21896	22896	23896	24896	25896	26896	27896	28896	29896	30896	31896	32896	33896	34896	35896	36896	37896	38896	39896	40896	41896	42896	43896	44896	45896	46896	47896	48896	49896	50896	51896	52896	53896	54896	55896	56896	57896	58896	59896	60896	61896	62896	63896	64896	65896	66896	67896	68896	69896	70896	71896	72896	73896	74896	75896	76896	77896	78896	79896	80896	81896	82896	83896	84896	85896	86896	87896	88896	89896	90896	91896	92896	93896	94896	95896	96896	97896	98896	99896
1197	2497	3897	4897	5897	6897	7897	8897	9897	10897	11897	12897	13897	14897	15897	16897	17897	18897	198																																																																																

(Continued from the preceding page.)

57955	58002	58058	58187	58310	58417	58543	58699	58767	58949	59073	59284	59528	59831	60134	60437	60740	61043	61346	61649	61952	62255	62558	62861	63164	63467	63770	64073	64376	64679	64982	65285	65588	65891	66194	66497	66800	67103	67406	67709	68012	68315	68618	68921	69224	69527	69830	70133	70436	70739	71042	71345	71648	71951	72254	72557	72860	73163	73466	73769	74072	74375	74678	74981	75284	75587	75890	76193	76496	76799	77102	77405	77708	78011	78314	78617	78920	79223	79526	79829	80132	80435	80738	81041	81344	81647	81950	82253	82556	82859	83162	83465	83768	84071	84374	84677	84980	85283	85586	85889	86192	86495	86798	87101	87404	87707	88010	88313	88616	88919	89222	89525	89828	90131	90434	90737	91040	91343	91646	91949	92252	92555	92858	93161	93464	93767	94070	94373	94676	94979	95282	95585	95888	96191	96494	96797	97100	97403	97706	98009	98312	98615	98918	99221	99524	99827	100130	100433	100736	101039	101342	101645	101948	102251	102554	102857	103160	103463	103766	104069	104372	104675	104978	105281	105584	105887	106190	106493	106796	107099	107402	107705	108008	108311	108614	108917	109220	109523	109826	110129	110432	110735	111038	111341	111644	111947	112250	112553	112856	113159	113462	113765	114068	114371	114674	114977	115280	115583	115886	116189	116492	116795	117098	117401	117704	118007	118310	118613	118916	119219	119522	119825	120128	120431	120734	121037	121340	121643	121946	122249	122552	122855	123158	123461	123764	124067	124370	124673	124976	125279	125582	125885	126188	126491	126794	127097	127400	127703	128006	128309	128612	128915	129218	129521	129824	130127	130430	130733	131036	131339	131642	131945	132248	132551	132854	133157	133460	133763	134066	134369	134672	134975	135278	135581	135884	136187	136490	136793	137096	137399	137702	138005	138308	138611	138914	139217	139520	139823	140126	140429	140732	141035	141338	141641	141944	142247	142550	142853	143156	143459	143762	144065	144368	144671	144974	145277	145580	145883	146186	146489	146792	147095	147398	147701	148004	148307	148610	148913	149216	149519	149822	150125	150428	150731	151034	151337	151640	151943	152246	152549	152852	153155	153458	153761	154064	154367	154670	154973	155276	155579	155882	156185	156488	156791	157094	157397	157700	158003	158306	158609	158912	159215	159518	159821	160124	160427	160730	161033	161336	161639	161942	162245	162548	162851	163154	163457	163760	164063	164366	164669	164972	165275	165578	165881	166184	166487	166790	167093	167396	167699	168002	168305	168608	168911	169214	169517	169820	170123	170426	170729	171032	171335	171638	171941	172244	172547	172850	173153	173456	173759	174062	174365	174668	174971	175274	175577	175880	176183	176486	176789	177092	177395	177698	178001	178304	178607	178910	179213	179516	179819	180122	180425	180728	181031	181334	181637	181940	182243	182546	182849	183152	183455	183758	184061	184364	184667	184970	185273	185576	185879	186182	186485	186788	187091	187394	187697	188000	188303	188606	188909	189212	189515	189818	190121	190424	190727	191030	191333	191636	191939	192242	192545	192848	193151	193454	193757	194060	194363	194666	194969	195272	195575	195878	196181	196484	196787	197090	197393	197696	198000	198303	198606	198909	199212	199515	199818	200121	200424	200727	201030	201333	201636	201939	202242	202545	202848	203151	203454	203757	204060	204363	204666	204969	205272	205575	205878	206181	206484	206787	207090	207393	207696	208000	208303	208606	208909	209212	209515	209818	210121	210424	210727	211030	211333	211636	211939	212242	212545	212848	213151	213454	213757	214060	214363	214666	214969	215272	215575	215878	216181	216484	216787	217090	217393	217696	218000	218303	218606	218909	219212	219515	219818	220121	220424	220727	221030	221333	221636	221939	222242	222545	222848	223151	223454	223757	224060	224363	224666	224969	225272	225575	225878	226181	226484	226787	227090	227393	227696	228000	228303	228606	228909	229212	229515	229818	230121	230424	230727	231030	231333	231636	231939	232242	232545	232848	233151	233454	233757	234060	234363	234666	234969	235272	235575	235878	236181	236484	236787	237090	237393	237696	238000	238303	238606	238909	239212	239515	239818	240121	240424	240727	241030	241333	241636	241939	242242	242545	242848	243151	243454	243757	244060	244363	244666	244969	245272	245575	245878	246181	246484	246787	247090	247393	247696	248000	248303	248606	248909	249212	249515	249818	250121	250424	250727	251030	251333	251636	251939	252242	252545	252848	253151	253454	253757	254060	254363	254666	254969	255272	255575	255878	256181	256484	256787	257090	257393	257696	258000	258303	258606	258909	259212	259515	259818	260121	260424	260727	261030	261333	261636	261939	262242	262545	262848	263151	263454	263757	264060	264363	264666	264969	265272	265575	265878	266181	266484	266787	267090	267393	267696	268000	268303	268606	268909	269212	269515	269818	270121	270424	270727	271030	271333	271636	271939	272242	272545	272848	273151	273454	273757	274060	274363	274666	274969	275272	275575	275878	276181	276484	276787	277090	277393	277696	278000	278303	2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AUTHORISE
TO SIGN

CANADA

Stock	High	Low	Close	Chng	Stock	High	Low	Close	Chng	Stock	High	Low	Close	Chng	Stock	High	Low	Close	Chng
TORONTO																			
4:00 pm prices February 14																			
Quotations in cents unless marked \$																			
1300 Albitol P	51 1/2	51 1/2	51 1/2	-1/4	18000 Dorian A	10	10	10	-	22000 Mackenzie	97 1/2	97 1/2	97 1/2	+1/4	27900 Rythm	54 1/2	54 1/2	54 1/2	-1/4
3000 Agnico P	86 1/2	86 1/2	86 1/2	-1/4	18000 Dorian B	10	10	10	-	17400 Mason B	51 1/2	51 1/2	51 1/2	-1/4	11800 Sovereign	140	140	140	-1/4
4000 Air Cdn	97 1/2	97 1/2	97 1/2	-1/4	11800 Dorian C	10	10	10	-	20000 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	800 StockPro	51 1/2	51 1/2	51 1/2	-1/4
5000 Alcan	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian D	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
11800 Albitol	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian E	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
30700 Alcan A	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian F	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
54000 Am Bury	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian G	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
18000 Am C	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian H	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
11800 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian I	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian J	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian K	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian L	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian M	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian N	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian O	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian P	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian Q	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian R	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian S	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian T	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian U	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian V	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian W	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian X	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian Y	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian Z	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AA	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AB	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AC	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AD	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AE	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AF	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AG	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AH	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AI	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AJ	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AK	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AL	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AM	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AN	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AO	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AP	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AQ	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AR	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AS	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AT	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AU	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AV	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AW	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AX	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AY	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian AZ	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian BA	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian BB	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian BC	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian BD	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2	+1/4	34000 Sunco	51 1/2	51 1/2	51 1/2	-1/4
20000 Bk Mtn	51 1/2	51 1/2	51 1/2	-1/4	11800 Dorian BE	10	10	10	-	17400 Maple Leaf	20 1/2	20 1/2	20 1/2</						

**AUTHORISE
UNIT TRUS**

● Current Unit Trust prices are available on FT Cityline, call 0891 123-456. Calls charged at 38p/minute, peak rate and 48p/minute at all other times. To obtain your free Unit Trust Code Booklet call 071-825-2126.

Unit Name	Int. Charge	Cont. Price	Bid Price	Offer Price	Yield Pct.	City
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Caribbean Food Managers L2000F									
Caribbean Food, 15-18 Margaret Street									
Leahs L2000F									
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Code	Company Name	Share Price	Dividend	Yield %	Market Cap	Volume
120000	Massville Management Ltd (120000)	1.00	0.00	0.00	1.00	1.00
120001	120001	1.00	0.00	0.00	1.00	1.00
120002	120002	1.00	0.00	0.00	1.00	1.00
120003	120003	1.00	0.00	0.00	1.00	1.00
120004	120004	1.00	0.00	0.00	1.00	1.00
120005	120005	1.00	0.00	0.00	1.00	1.00
120006	120006	1.00	0.00	0.00	1.00	1.00
120007	120007	1.00	0.00	0.00	1.00	1.00
120008	120008	1.00	0.00	0.00	1.00	1.00
120009	120009	1.00	0.00	0.00	1.00	1.00
120010	120010	1.00	0.00	0.00	1.00	1.00
120011	120011	1.00	0.00	0.00	1.00	1.00
120012	120012	1.00	0.00	0.00	1.00	1.00
120013	120013	1.00	0.00	0.00	1.00	1.00
120014	120014	1.00	0.00	0.00	1.00	1.00
120015	120015	1.00	0.00	0.00	1.00	1.00
120016	120016	1.00	0.00	0.00	1.00	1.00
120017	120017	1.00	0.00	0.00	1.00	1.00
120018	120018	1.00	0.00	0.00	1.00	1.00
120019	120019	1.00	0.00	0.00	1.00	1.00
120020	120020	1.00	0.00	0.00	1.00	1.00
120021	120021	1.00	0.00	0.00	1.00	1.00
120022	120022	1.00	0.00	0.00	1.00	1.00
120023	120023	1.00	0.00	0.00	1.00	1.00
120024	120024	1.00	0.00	0.00	1.00	1.00
120025	120025	1.00	0.00	0.00	1.00	1.00
120026	120026	1.00	0.00	0.00	1.00	1.00
120027	120027	1.00	0.00	0.00	1.00	1.00
120028	120028	1.00	0.00	0.00	1.00	1.00
120029	120029	1.00	0.00	0.00	1.00	1.00
120030	120030	1.00	0.00	0.00	1.00	1.00
120031	120031	1.00	0.00	0.00	1.00	1.00
120032	120032	1.00	0.00	0.00	1.00	1.00
120033	120033	1.00	0.00	0.00	1.00	1.00
120034	120034	1.00	0.00	0.00	1.00	1.00
120035	120035	1.00	0.00	0.00	1.00	1.00
120036	120036	1.00	0.00	0.00	1.00	1.00
120037	120037	1.00	0.00	0.00	1.00	1.00
120038	120038	1.00	0.00	0.00	1.00	1.00
120039	120039	1.00	0.00	0.00	1.00	1.00
120040	120040	1.00	0.00	0.00	1.00	1.00
120041	120041	1.00	0.00	0.00	1.00	1.00
120042	120042	1.00	0.00	0.00	1.00	1.00
120043	120043	1.00	0.00	0.00	1.00	1.00
120044	120044	1.00	0.00	0.00	1.00	1.00
120045	120045	1.00	0.00	0.00	1.00	1.00
120046	120046	1.00	0.00	0.00	1.00	1.00
120047	120047	1.00	0.00	0.00	1.00	1.00
120048	120048	1.00	0.00	0.00	1.00	1.00
120049	120049	1.00	0.00	0.00	1.00	1.00
120050	120050	1.00	0.00	0.00	1.00	1.00
120051	120051	1.00	0.00	0.00	1.00	1.00
120052	120052	1.00	0.00	0.00	1.00	1.00
120053	120053	1.00	0.00	0.00	1.00	1.00
120054	120054	1.00	0.00	0.00	1.00	1.00
120055	120055	1.00	0.00	0.00	1.00	1.00
120056	120056	1.00	0.00	0.00	1.00	1.00
120057	120057	1.00	0.00	0.00	1.00	1.00
120058	120058	1.00	0.00	0.00	1.00	1.00
120059	120059	1.00	0.00	0.00	1.00	1.00
120060	120060	1.00	0.00	0.00	1.00	1.00
120061	120061	1.00	0.00	0.00	1.00	1.00
120062	120062	1.00	0.00	0.00	1.00	1.00
120063	120063	1.00	0.00	0.00	1.00	1.00
120064	120064	1.00	0.00	0.00	1.00	1.00
120065	120065	1.00	0.00	0.00	1.00	1.00
120066	120066	1.00	0.00	0.00	1.00	1.00
120067	120067	1.00	0.00	0.00	1.00	1.00
120068	120068	1.00	0.00	0.00	1.00	1.00
120069	120069	1.00	0.00	0.00	1.00	1.00
120070	120070	1.00	0.00	0.00	1.00	1.00
120071	120071	1.00	0.00	0.00	1.00	1.00
120072	120072	1.00	0.00	0.00	1.00	1.00
120073	120073	1.00	0.00	0.00	1.00	1.00
120074	120074	1.00	0.00	0.00	1.00	1.00
120075	120075	1.00	0.00	0.00	1.00	1.00
120076	120076	1.00	0.00	0.00	1.00	1.00
120077	120077	1.00	0.00	0.00	1.00	1.00
120078	120078	1.00	0.00	0.00	1.00	1.00
120079	120079	1.00	0.00	0.00	1.00	1.00
120080	120080	1.00	0.00	0.00	1.00	1.00
120081	120081	1.00	0.00	0.00	1.00	1.00
120082	120082	1.00	0.00	0.00	1.00	1.00
120083	120083	1.00	0.00	0.00	1.00	1.00
120084	120084	1.00	0.00	0.00	1.00	1.00
120085	120085	1.00	0.00	0.00	1.00	1.00
120086	120086	1.00	0.00	0.00	1.00	1.00
120087	120087	1.00	0.00	0.00	1.00	1.00
120088	120088	1.00	0.00	0.00	1.00	1.00
120089	120089	1.00	0.00	0.00	1.00	1.00
120090	120090	1.00	0.00	0.00	1.00	1.00
120091	120091	1.00	0.00	0.00	1.00	1.00
120092	120092	1.00	0.00	0.00	1.00	1.00
120093	120093	1.00	0.00	0.00	1.00	1.00
120094	120094	1.00	0.00	0.00	1.00	1.00
120095	120095	1.00	0.00	0.00	1.00	1.00
120096	120096	1.00	0.00	0.00	1.00	1.00
120097	120097	1.00	0.00	0.00	1.00	1.00
120098	120098	1.00	0.00	0.00	1.00	1.00
120099	120099	1.00	0.00	0.00	1.00	1.00
120100	120100	1.00	0.00	0.00	1.00	1.00
120101	120101	1.00	0.00	0.00	1.00	1.00
120102	120102	1.00	0.00	0.00	1.00	1.00
120103	120103	1.00	0.00	0.00	1.00	1.00
120104	120104	1.00	0.00	0.00	1.00	1.00
120105	120105	1.00	0.00	0.00	1.00	1.00
120106	120106	1.00	0.00	0.00	1.00	1.00
120107	120107	1.00	0.00	0.00	1.00	1.00
120108	120108	1.00	0.00	0.00	1.00	1.00
120109	120109	1.00	0.00	0.00	1.00	1.00
120110	120110	1.00	0.00	0.00	1.00	1.00
120111	120111	1.00	0.00	0.00	1.00	1.00
120112	120112	1.00	0.00	0.00	1.00	1.00
120113	120113	1.00	0.00	0.00	1.00	1.00
120114	120114	1.00	0.00	0.00	1.00	1.00
120115	120115	1.00	0.00	0.00	1.00	1.00
120116	120116	1.00	0.00	0.00	1.00	1.00
120117	120117	1.00	0.00	0.00	1.00	1.00
120118	120118	1.00	0.00	0.00	1.00	1.00
120119	120119	1.00	0.00	0.00	1.00	1.00
120120	120120	1.00	0.00	0.00	1.00	1.00
120121	120121	1.00	0.00	0.00	1.00	1.00
120122	120122	1.00	0.00	0.00	1.00	1.00
120123	120123	1.00	0.00	0.00	1.00	1.00
120124	120124	1.00	0.00	0.00	1.00	1.00
120125	120125	1.00	0.00	0.00	1.00	1.00
120126	120126	1.00	0.00	0.00	1.00	1.00
120127	120127	1.00	0.00	0.00	1.00	1.00
120128	120128	1.00	0.00	0.00	1.00	1.00
120129	120129	1.00	0.00	0.00	1.00	1.00
120130	120130	1.00	0.00	0.00	1.00	1.00
120131	120131	1.00	0.00	0.00	1.00	1.00
120132	120132	1.00	0.00	0.00	1.00	1.00
120133	120133	1.00	0.00	0.00	1.00	1.00
120134	120134	1.00	0.00	0.00	1.00	1.00
120135	120135	1.00	0.00	0.00	1.00	1.00
120136	120136	1.00	0.00	0.00	1.00	1.00
120137	120137	1.00	0.00	0.00	1.00	1.00
120138	120138	1.00	0.00	0.00	1.00	1.00
120139	120139	1.00	0.00	0.00	1.00	1.00
120140	120140	1.00	0.00	0.00	1.00	1.00
120141	120141	1.00	0.00	0.00	1.00	1.00
120142	120142	1.00	0.00	0.00	1.00	1.00
120143	120143	1.00	0.00	0.00	1.00	1.00
120144	120144	1.00	0.00	0.00	1.00	1.00
120145	120145	1.00	0.00	0.00	1.00	1.00
120146	120146	1.00	0.00	0.00	1.00	1.00
120147	120147	1.00	0.00	0.00	1.00	1.00
120148	120148	1.00	0.00	0.00	1.00	1.00
120149	120149	1.00	0.00	0.00	1.00	1.00
120150	120150	1.00	0.00	0.00	1.00	1.00
120151	120151	1.00	0.00	0.00	1.00	1.00
120152	120152	1.00	0.00	0.00	1.00	1.00
120153	120153	1.00	0.00	0.00	1.00	1.00
120154	120154	1.00	0.00	0.00	1.00	1.00
120155	120155	1.00	0.00	0.00	1.00	1.00
120156	120156	1.00	0.00	0.00	1.00	1.00
120157	120157	1.00	0.00	0.00	1.00	1.00
120158	120158	1.00	0.00	0.00	1.00	1.00
120159	120159	1.00	0.00	0.00	1.00	1.00
120160	120160	1.00	0.00	0.00	1.00	1.00
120161	120161	1.00	0.00	0.00	1.00	1.00
120162	120162	1.00	0.00	0.00	1.00	1.00
120163	120163	1.00	0.00	0.00	1.00	1.00
120164	120164	1.00	0.00	0.00	1.00	1.00
120165	120165	1.00	0.00	0.00	1.00	1.00
120166	120166	1.00	0.00	0.00	1.00	1.00
120167	120167	1.00	0.00	0.00	1.00	1.00
120168	120168	1.00	0.00	0.00	1.00	1.00
120169	120169	1.00	0.00	0.00	1.00	1.00
120170	120170	1.00	0.00	0.00	1.00	1.00
120171	120171	1.00	0.00	0.00	1.00	1.00
120172	120172	1.00	0.00	0.00	1.00	1.00
120173	120173	1.00	0.00			

[illegible][illegible]

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100

INITIAL CHARGE: Charge made on sale of **HISTORIC PRICING:** The better H. Covered

OFFER PRICE: Also called issue price. The price at which units are bought by investors.

CANCELLATION PRICE: The minimum redemption price. The maximum spread between the offer and bid prices is determined by a formula laid

price in addition to the purchase or sale being carried out. The prices appearing in the newspaper are the most recent provided by the managers.

SCHEME PARTICULARS AND REPORTS:

The most recent report and scheme particulars can be obtained free of charge from the

TIME: The time shown alongside the fund manager's name is the time of the unit trust's valuation point unless another time is indicated by the symbol alongside the individual unit trust name. The symbols are as follows: (♥) - 0001 01100

hours (♂) - 1101 to 1400 hours; (♀) - 1401 to 1700 hours; (♂) - 1701 to midnight. Daily trading prices are set on the basis of one valuation point; a short period of time may elapse before prices become available.

European	94.28	68.72	68.12	-0.60
GFA	94.28	68.72	68.12	-0.60
Germany	94.28	68.72	68.12	-0.60
S.E.W Far Eastern	92.30	93.04	98.45	5.41
S.E.W Germany	104.4	209.98	111.40	47.13
S.E.W Japan	81.46	97.26	98.68	1.42

[illegible]

European	54	63.69	65.31	68.74	0.1634	American Growth	54	63.69	63.69	68.12	0.1634
GIR	54	69.57	69.68	73.34	0.1634	Eur Sp Sto Acc	54	37.36	37.36	38.71	0.0912
Develop	54	69.78	69.78	73.45	0.1632	Eur Sp Sto Acc	54	39.80	39.80	39.80	0.1125
Managed	54	69.89	70.88	74.60	0.1630	Eur Sp Sto Acc	54	21.56	21.56	21.56	0.0460

Royal Life Fd Wmnt Ltd (1000IF)
 PO Box 34, Pritchborough PE20 9PE. Tel: 071-4100410
 Fax: 071-4100410. Division: 071-4100410

[illegible][illegible][illegible]

● Current Unit Trust prices are available on FT Cityline, call 0891 123456. Calls charged at 30p/minute (peak rate) and 45p/minute at all other times. To obtain your free Unit Trust Code Booklet call 071-925-2128.

Continued on next page

11/19	Hooy Kang	538.67	61
12/1	Ming Portfolio (Stip)	12.14	4
	Ming Portfolio (Dile)	510.80	11

● Current Unit Trust prices are available on FT Cityline, call 0891 123456. Calls charged at 35p/minute (peak rate) and 40p/minute at all other times. To obtain your free Unit Trust Code Booklet call 071-925-2128.

[illegible]

CURRENCIES, MONEY AND CAPITAL MARKETS

MONEY MARKETS

Watchful eyes on £

TO cut or not to cut - that will be the big question occupying the Bank of England as it watches the fate of sterling in the foreign exchanges and as political pressures for a reduction grow more intense.

Starling's shining performance last week when it ignored virtually every piece of bad news the economists could throw at it - may well strengthen the case for an interest rate cut.

UK clearing bank base lending rate 10.5 per cent from September 4, 1991

Certainly, if the dollar continued to rise at the expense of the D-Mark, one of the heaviest pressures on the UK currency could be eased just enough to allow a reduction in interest rates.

Dr. Michael Austin, economist with HongKong Bank, suggests that the authorities could "get away with just a small cut, in a such a case. The market is becoming increasingly attuned

to the idea of a % point reduction.

A strong dollar appears to be on the cards this week, with few events scheduled which would have an adverse impact.

Mr Alan Greenspan, chairman of the Federal Reserve, is set to give his biannual report to Congress on Wednesday, known as the Humphrey-Hawkins speech. Most economists expect him to say the same old thing - enough has been done, but if necessary we will do more.

The market is also looking for a pick up in housing starts, due out on the same day.

Even if the statisticians come up with depressing numbers, "the market is in the mood to ignore the bad news

in Germany, good producer price figures are not expected to put off the D-Mark bears.

The continuing difficulty of wage negotiations and the Bundesbank's stated policy of holding firm on rates are likely to weaken the D-Mark, say economists.

£ IN NEW YORK

Feb 14	Close	Previous
Spot	1.7785-1.7793	1.7772-1.7780
1 month	0.91-0.92	0.91-0.92
3 months	0.91-0.92	0.91-0.92
6 months	0.91-0.92	0.91-0.92
12 months	0.91-0.92	0.91-0.92

Forward premiums and discounts apply to the US dollar

STERLING INDEX

Feb 14	Close	Previous
8.30	90.7	90.9
9.00	90.7	90.9
10.00	90.7	90.9
11.00	90.7	90.9
12.00	90.7	90.9
1.00	90.7	90.9
2.00	90.7	90.9
3.00	90.7	90.9
4.00	90.7	90.9

OTHER CURRENCIES

Feb 14	Close	Previous
Australia	1.3400-1.3400	1.3390-1.3390
Canada	1.3300-1.3300	1.3290-1.3290
France	1.3300-1.3300	1.3290-1.3290
Germany	1.3300-1.3300	1.3290-1.3290
Italy	1.3300-1.3300	1.3290-1.3290
Japan	1.3300-1.3300	1.3290-1.3290
Netherlands	1.3300-1.3300	1.3290-1.3290
Spain	1.3300-1.3300	1.3290-1.3290
Sweden	1.3300-1.3300	1.3290-1.3290
Switzerland	1.3300-1.3300	1.3290-1.3290
UK	1.3300-1.3300	1.3290-1.3290
USA	1.3300-1.3300	1.3290-1.3290

CHICAGO

Feb 14	Close	Previous
US Treasury Bills	1.3300-1.3300	1.3290-1.3290
US Treasury Notes	1.3300-1.3300	1.3290-1.3290
US Treasury Bonds	1.3300-1.3300	1.3290-1.3290
US Treasury Inflation	1.3300-1.3300	1.3290-1.3290
US Treasury Floating	1.3300-1.3300	1.3290-1.3290
US Treasury Zero	1.3300-1.3300	1.3290-1.3290
US Treasury Inflation	1.3300-1.3300	1.3290-1.3290
US Treasury Floating	1.3300-1.3300	1.3290-1.3290
US Treasury Zero	1.3300-1.3300	1.3290-1.3290
US Treasury Inflation	1.3300-1.3300	1.3290-1.3290
US Treasury Floating	1.3300-1.3300	1.3290-1.3290
US Treasury Zero	1.3300-1.3300	1.3290-1.3290

JAPANESE YEN INDEX

Feb 14	Close	Previous
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290
Yen Index	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY BILLS INDEX

Feb 14	Close	Previous
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290
Treasury Bills	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY NOTES INDEX

Feb 14	Close	Previous
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290
Treasury Notes	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY BONDS INDEX

Feb 14	Close	Previous
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290
Treasury Bonds	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY INFLATION INDEX

Feb 14	Close	Previous
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY FLOATING INDEX

Feb 14	Close	Previous
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY ZERO INDEX

Feb 14	Close	Previous
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY INFLATION INDEX

Feb 14	Close	Previous
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY FLOATING INDEX

Feb 14	Close	Previous
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY ZERO INDEX

Feb 14	Close	Previous
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY INFLATION INDEX

Feb 14	Close	Previous
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY FLOATING INDEX

Feb 14	Close	Previous
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY ZERO INDEX

Feb 14	Close	Previous
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290
Treasury Zero	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY INFLATION INDEX

Feb 14	Close	Previous
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290
Treasury Inflation	1.3300-1.3300	1.3290-1.3290

U.S. TREASURY FLOATING INDEX

Feb 14	Close	Previous
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290
Treasury Floating	1.3300-1.3300	1.3290-1.3290

MONEY MARKETS

Watchful eyes on £

TO cut or not to cut - that will be the big question occupying the Bank of England as it watches the fate of sterling in the foreign exchanges and as political pressures for a reduction grow more intense.

Starling's shining performance last week when it ignored virtually every piece of bad news the economists could

15 - Cont.

[illegible][illegible][illegible]

Strat. Plan.	274	-7	6/76	Jan	32.1	254	2382
Strat. Plan.	275	-7	6/76	Jan	32.1	254	2382
Strat. Plan.	276	2.5	4/85	Jan Aug	18.30	211	2339
Strat. Plan.	277	-1	6/85	Jan	1.22	333	3333
Strat. Plan. M	278	-1	6/85	Jan	20.0	271	3540
Strat. Plan. M	279	-4	3.0	Mar	1.01	233	2339
Strat. Plan. M	280	-1	6/85	Jan	1.22	333	3333
Strat. Plan. M	281	-1	6/85	Nov Jul	19.0	210	2339
Strat. Plan. M	282	4.9	6/76	Jan	12.2	120	2378
Strat. Plan. M	283	-7	2/76	Jan	1.01	233	2339
Strat. Plan. M	284	-1	6/85	Jan	32.0	332	3333
Strat. Plan. M	285	-0.0	-6/85	Jan	1.79	348	3488
Strat. Plan. M	286	-1	4/83	Jan	34.3	331	3339
Strat. Plan. M	287	4.1	6/85	Jan	4.10	343	3339
Strat. Plan. M	288	-1.1	-6/85	Jan	30.3	332	3339
Strat. Plan. M	289	-1	6/85	Jan	1.01	233	2339
Strat. Plan. M	290	-1	6/85	Jan	1.01	233	2339
Strat. Plan. M	291	-1	6/85	Jan	1.01	233	2339
Strat. Plan. M	292	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	293	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	294	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	295	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	296	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	297	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	298	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	299	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	300	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	301	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	302	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	303	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	304	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	305	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	306	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	307	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	308	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	309	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	310	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	311	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	312	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	313	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	314	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	315	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	316	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	317	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	318	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	319	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	320	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	321	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	322	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	323	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	324	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	325	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	326	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	327	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	328	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	329	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	330	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	331	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	332	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	333	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	334	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	335	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	336	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	337	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	338	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	339	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	340	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	341	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	342	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	343	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	344	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	345	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	346	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	347	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	348	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	349	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	350	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	351	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	352	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	353	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	354	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	355	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	356	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	357	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	358	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	359	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	360	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	361	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	362	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	363	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	364	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	365	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	366	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	367	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	368	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	369	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	370	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	371	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	372	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	373	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	374	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	375	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	376	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	377	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	378	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	379	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	380	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	381	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	382	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	383	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	384	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	385	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	386	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	387	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	388	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	389	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	390	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	391	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	392	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	393	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	394	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	395	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	396	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	397	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	398	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	399	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	400	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	401	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	402	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	403	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	404	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	405	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	406	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	407	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	408	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	409	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	410	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	411	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	412	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	413	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	414	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	415	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	416	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	417	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	418	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	419	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	420	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	421	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	422	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	423	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	424	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	425	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	426	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	427	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	428	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	429	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	430	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	431	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	432	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	433	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	434	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	435	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	436	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	437	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	438	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	439	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	440	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	441	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	442	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	443	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	444	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	445	0.0	6/85	Jan	20.1	131	3441
Strat. Plan. M	446	0.0					

Belgium	74	-13	2,613,000	Jul	1,34	1842
Bolivia	100	-6.5	2,915,000	Jul	1,34	1842
Brazil	100	-10	2,915,000	Jul	1,34	1842
Canada	100	-10	2,915,000	Jul	1,34	1842
Chile	100	-10	2,915,000	Jul	1,34	1842
Colombia	100	-10	2,915,000	Jul	1,34	1842
Cuba	100	-10	2,915,000	Jul	1,34	1842
Czech Rep.	100	-10	2,915,000	Jul	1,34	1842
Denmark	100	-10	2,915,000	Jul	1,34	1842
Ecuador	100	-10	2,915,000	Jul	1,34	1842
El Salvador	100	-10	2,915,000	Jul	1,34	1842
France	100	-10	2,915,000	Jul	1,34	1842
Germany	100	-10	2,915,000	Jul	1,34	1842
Greece	100	-10	2,915,000	Jul	1,34	1842
Hong Kong	100	-10	2,915,000	Jul	1,34	1842
Hungary	100	-10	2,915,000	Jul	1,34	1842
India	100	-10	2,915,000	Jul	1,34	1842
Indonesia	100	-10	2,915,000	Jul	1,34	1842
Italy	100	-10	2,915,000	Jul	1,34	1842
Japan	100	-10	2,915,000	Jul	1,34	1842
Korea	100	-10	2,915,000	Jul	1,34	1842
Malaysia	100	-10	2,915,000	Jul	1,34	1842
Mexico	100	-10	2,915,000	Jul	1,34	1842
Netherlands	100	-10	2,915,000	Jul	1,34	1842
New Zealand	100	-10	2,915,000	Jul	1,34	1842
Norway	100	-10	2,915,000	Jul	1,34	1842
Philippines	100	-10	2,915,000	Jul	1,34	1842
Poland	100	-10	2,915,000	Jul	1,34	1842
Portugal	100	-10	2,915,000	Jul	1,34	1842
Romania	100	-10	2,915,000	Jul	1,34	1842
Russia	100	-10	2,915,000	Jul	1,34	1842
Saudi Arabia	100	-10	2,915,000	Jul	1,34	1842
Spain	100	-10	2,915,000	Jul	1,34	1842
Sweden	100	-10	2,915,000	Jul	1,34	1842
Switzerland	100	-10	2,915,000	Jul	1,34	1842
Taiwan	100	-10	2,915,000	Jul	1,34	1842
Thailand	100	-10	2,915,000	Jul	1,34	1842
Turkey	100	-10	2,915,000	Jul	1,34	1842
U.S.	100	-10	2,915,000	Jul	1,34	1842
U.K.	100	-10	2,915,000	Jul	1,34	1842
U.S.S.R.	100	-10	2,915,000	Jul	1,34	1842
Vietnam	100	-10	2,915,000	Jul	1,34	1842
Yugoslavia	100	-10	2,915,000	Jul	1,34	1842

City	Deadend	Last	City
line	year	line	line
10	May Day	12.9 5432	
11	---	---	177 2403
12	13 June	20.1 2381	
13	Feb Ann	30.12 3184	
14	---	---	12.8 4885
15	May Mar	20.1 4177	
16	---	---	12.6 4202
17	---	---	3.7 1214
18	---	---	1.7 4474
19	40 Mar	12.4 4477	
20	---	---	3.7 1254
21	---	---	
22	19 Apr	10.9 1702	
23	Jun Dec	20.5 2623	
24	---	---	2630
25	3.6 Feb Ann	2.4 2350	
26	---	---	3844
27	---	---	14.1 3220
28	---	---	57.4 6887
29	5.2 Jun Mar	20.1 6508	
30	---	---	
31	19 Dec Jan	20.1 0	
32	2.9 May	1.0 2322	
33	2 Feb Ann	1.7 ---	
34	17 Mar	16.5 2810	
35	12 Mar Dec	7.4 0	
36	---	---	3823
37	1.4 Mar Dec	30.3 3900	
38	---	---	
39	3.2 Apr Ann	11.1 2530	
40	---	---	203 4424
41	6 Apr Ann	1.7 1372	
42	---	---	1.7 8251
43	---	---	170 4506
44	---	---	
45	2.6 Dec Jan	25.1 1987	
46	19 June Ann	17.12 1800	
47	20 June Dec	20.6 1800	
48	---	---	492 2603
49	3.5 Jan Ann	17.6 ---	
50	10 Mar Dec	16.1 ---	
51	---	---	20.1 2197
52	13 May	20.1 4603	
53	1 May	2.7 6777	
54	2.2 Apr Dec	30.6 ---	
55	13 May Feb	17.0 ---	
56	10 Mar Dec	30.6 1227	
57	---	---	5407
58	18 Feb Feb	27 ---	
59	10 June Dec	20.5 3064	
60	5.2 Jan Jan	25.1 3708	
61	10 June Dec	11.1 3704	
62	6 Sep Feb	25.1 4487	
63	---	---	1708 4743
64	10 June Dec	20.5 4464	
65	---	---	
66	6 Oct	---	1371
67	---	---	4824
68	---	---	29 1852
69	1.9 May Nov	21.0 1200	

	19 Dec Jan	—	4884
14	Nov	—	4380
		—	4844
		—	4450
		—	4848
	0 Oct	5 10 2719	—
28	6.0 Dec	—	4942
		—	1010
		—	3021
06	1.2 Accessibility	203 4933	—
		—	3330
		—	4930
	14 May Dec	112 3946	—
		—	4884
26		1190	—
		—	4881
22 Jan Dec	24 3854	—	—
24	2 Sep	—	3804
		—	4880
		—	3458
14p	1.9 Dec	23.9 3880	—
		—	3402
00	0 Jan Dec	21.1 4085	—
		—	4081
00	1.4 May Day	7.10 4479	—
38		9.3 2714	—
36	Oct	23.1 2728	—
36	3.5 Dec Jul	28.10 3272	—
36	1.7 Mar	11.3 3044	—
		—	8180
		—	1383
		—	2824
		—	4894
		—	2216
		—	8677
		—	1416
		—	670 9457
		—	6.65 2870
		—	3773
00	Dec Jan	8.11	—
00	Polio/Inf/Inf	31.1 2918	—
		—	3741

	-	-	-	-1185
	-	-	-	10 77
	-	-	-	-3690
	-	-	-	-9770
	-	-	-	-3487
1.8	1.7	Dec. Jul.	169	5880
	-	-	-	-4193
2	1.6	May Oct.	25	8090

BARE SERVICE

We cover the FT-Actuaries Index and
 Bonds as a price unless
 their sterling, this is indicated
 here; this comprises general
 contractual profits/losses but
 that Contributions are published
 into and Future Funds.
 We include UK shares where
 primary through the Stock
 AQ, and non-UK stocks which are
 under rule S35(4)(a)
 primary not subjected to earn
 under rule S35(2)
 rights issues; cover relates to
 obtained by latest action

- r official estimates for 1991-92.
- a If Dividend based on prospectus or other official estimate for 1991.
- P Figures based on prospectus or other official estimate for 1991
- G Dividends
- D Financial annualised dividend, cover based on prospectus or other official estimates.
- T Figures estimated.
- W Pro forma figures.
- Z Dividend topic to date.

- A Alternative:
- if no dividend;
- as no 50% issue;
- at 0% rate;
- at 0% capital distribution

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NEW YORK STOCK EXCHANGE COMPOSITE PRICES

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NASDAQ NATIONAL MARKET[illegible]

Last Chng Stock P/ \$100 High Low Last Chng Stock P/ \$100 High Low Last Chng Stock

Page 22

Stock	Div.	P/E	52 Wk High	Low	Close	Chng	Stock	Div.	P/E	52 Wk High	Low	Close	Chng	Stock	Div.	P/E	52 Wk High	Low	Close	Chng	
Acton Corp		1	10	53	54	54	Chiles		3	186	5	3	3	Hydrex		0.24	18	384	404	40	+
Adco Paper	0.16	18	142	272	274	274	Chl Corp		3	240	24	2	2	IBM Corp		0.14	8	32	75	75	+
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FINANCIAL TIMES
LONDON'S BUSINESS & FINANCE NEWSPAPER

MONDAY INTERVIEW

A thinker as well as a doer

David Lascelles talks to Professor Stephen Littlechild, electricity industry regulator

One year after the UK privatised its electricity industry, much of the debate about its future takes place in a large, 15th-floor office overlooking central Birmingham.

It is occupied by a lightly built man with a russet, gnome-like beard who seldom smiles, and whose every word sounds so carefully chosen that it might have been uttered by a judge. And, in a way, a judge he is.

Professor Stephen Littlechild is the director-general of electricity supply – the man charged with the statutory duty of promoting competition in the electricity industry. The grand set of titles is no accident. He is both a regulator and an academic: a thinker and a doer.

Anyone requesting a copy of his curriculum vitae is asked whether they want the long version or the short one. The long one consists of a page packed with details of his degrees, fellowships, appointments, consultancies and publications. The latter range from a weighty *Elements of Telecommunications Economics* (in Japanese) to treatises on aircraft landing fees, smoking and daffodil prices.

But the short version contains the central points. Since 1975, as Professor of Commerce at Birmingham University (from which he is currently on leave of absence), Prof Littlechild has been one of the leading academics on regulation issues. He advised the UK government on the regulatory regime for British Telecom and the water industry, and was a member of the Monopolies and Mergers Commission for six years. Most significantly, he invented the formula that governs the amount by which the electricity industry can raise its prices each year. His credentials for the electricity supply job were impeccable.

What this version does not say is that Prof Littlechild is also a great believer in market forces, and as such was in tune with the 1980s when he was appointed. But they accuse Prof Littlechild of being a product of the Thatcher years.

"The belief in the advantages of competition in satisfying the needs of customers and making companies work efficiently is centuries old," he says. "In many respects this is a fundamental part of our civilisation."

So what influenced his views? "I've always had a belief in freedom of choice, in a free society."

Some people might see a con-

tradition between this philosophy and the wielding of regulatory power over one of the UK's largest and most complex industries. But Prof Littlechild sees a clear role for himself.

Electricity was not privatised without flaws: there is insufficient competition in power generation; all sorts of barriers still prevent free competition among suppliers; and the prices of power sources like coal and nuclear are wildly distorted. The regulator has to maintain the momentum of change by opening the floodgates of competition, while ensuring the lights stay on.

Since last autumn, Prof Littlechild has issued a string of pronouncements and decisions, many of them dozens of pages long. He criticised the two companies that dominate the generating business for playing games with electricity prices, and threatened them with monopoly referral if they did not change their ways. He reduced some of the barriers holding back competition, and he ensured that householders had rebates after being overcharged by local electricity companies.

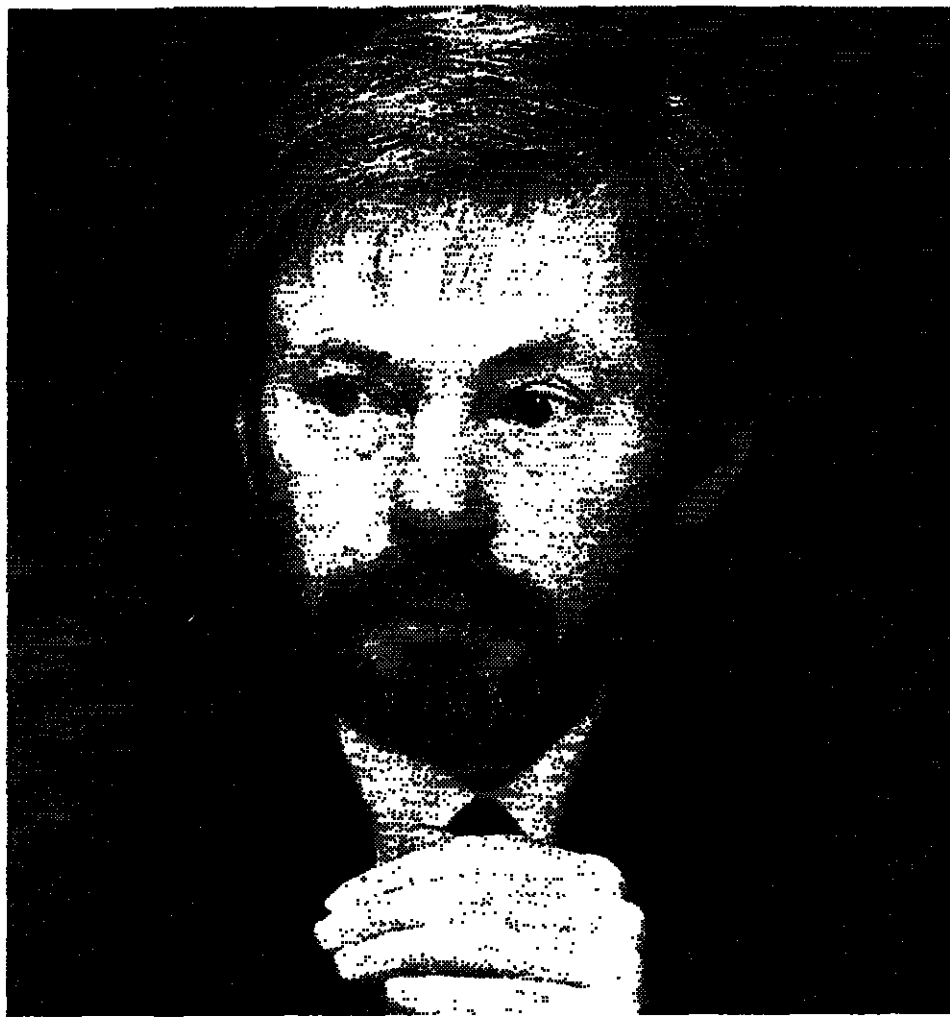
He believes in market forces, but it is too simplistic to say that they will solve all the problems," he admits. One of his worries is that the socially disadvantaged can become the victims rather than the beneficiaries of competition. So he has been tough with the electricity suppliers over disconnections, for example, when bills are not paid.

He also has his doubts whether market disciplines will push the power industry into caring for the environment; this led him to pen another lengthy paper proposing a new regime to encourage energy efficiency – by adding what he calls an "e" factor to the price formula.

This flurry of activity has not made him popular with the industry. This may be the natural lot of the regulator. But electricity executives also complain about the torrent of paper that streams out of Birmingham. They accuse Prof Littlechild of academic remoteness, of being more interested in producing learned treatises than in addressing the hard realities of the business world.

He looks slightly offended at this. "I don't think that I'm unduly academic. I try to lay out what the issues are. I try to explain my thinking and get a response. I think I have a good dialogue with the industry."

His biggest immediate challenge will be to decide what to do about the generating indus-



'I don't think that I'm unduly academic'

try in England and Wales, where the two descendants of the old Central Electricity Generating Board, National Power and PowerGen, have three quarters of the market between them. In spite of his monopoly referral threat, Prof Littlechild is keen not to cause upheaval at this early stage, because "I want to see if I can work with the industry I have inherited". He also studiously avoids accusing the generators outright of price gouging, presumably to prevent bringing the monopoly issue to a head just yet.

But he also wants to give his price formula time to work. It

PERSONAL FILE

1943 Born August 27. Educated Wisbech Grammar School.

1964 Graduated as Bachelor of Commerce, University of Birmingham.

1969 PhD, University of Texas.

1975 Professor of Commerce and head of department, University of Birmingham.

1983-89 Member of the Monopolies and Mergers Commission.

1989 Director-general of electricity supply.

was designed to force electricity companies to keep prices below the rate of inflation, and therefore cut costs. The companies will only do this if they know the formula will apply for several years, he argues. The first price review is not due to get under way until 1994. In this respect, Prof Littlechild has been much less aggressive than his colleagues regulating the gas and water industries, who have provoked vigorous clashes with the companies in their charge.

Further ahead, Prof Littlechild is already planning the introduction of competition

down to the grass roots of the UK electricity market: the private home. He has a vision of each household buying its electricity not just from its local distributor, but from any company it chooses.

"I do believe it is both possible and desirable for competition at the domestic level. I look forward to a situation where the domestic customer can look in the Yellow Pages for a supplier of electricity like a supplier of oil."

Power companies would compete not just on price but on levels of service, availability of credit, types of billing and so on. Electricity would be sold using sophisticated tariffs giving householders all sorts of options as to how and when they draw their power.

This brave new world would be based on new-fangled metering technology which Prof Littlechild has closely researched. For about £50-£80, he believes, people will be able to buy a device to measure how much electricity is used and apportion it to the various suppliers chosen by the household. It will probably be linked by radio to the supplier, which will then know exactly how much power it is supplying at any given moment.

His ideas about metering, laid out in a recent paper, have aroused interest in consumer organisations, but attracted a scornful response from much of the industry which doubts that ordinary householders want such a sophisticated level of service. But Prof Littlechild argues that the industry will have to go down this route as competition spreads. "The future is going to be different, and this is what people want," he says. "The UK would be pioneering in providing this service. A sensible timescale would be to look for full competition by the year 1998."

Prof Littlechild was greatly encouraged by the recent

energy directive from Brussels which will throw open national electricity and gas markets to competition from the rest of the European Community. It closely parallels what he is trying to do with UK electricity and will therefore fit comfortably with the future as he sees it. Continental countries, many of them still dominated by state-owned power monopolies, will have a far tougher time.

But Prof Littlechild's musings about the future could be rudely interrupted in a few weeks' time if a UK election produces a change of government. Although technically an independent regulator, the director of electricity supply is appointed by the energy secretary, and there has been some speculation that Prof Littlechild's free market leanings could cost him his job under a Labour administration.

He views the prospect calmly. "A change of government shouldn't have any effect," he says. "I don't anticipate a major problem."

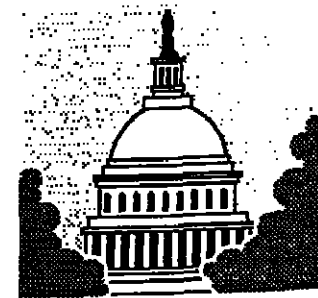
Chinks of light on the economy

Talk of "pervasive gloom" about the US economy has never been quite justified. For three years, professional forecasters have been consistently complacent. In the summer of 1990, most expected the US to avoid recession. In the spring of last year, most were confident of sustained economic growth. Last week, a rebound in department store and car sales was triumphantly seized upon as convincing evidence that recovery, at last, is at hand. Is it time to join the bulls and declare the recession history?

My initial reaction is to call for better US statistics. The preliminary figures that send ripples through global financial markets are often deeply misleading. According to last week's *Figure*, retail sales jumped 0.6 per cent in January. Revisions to prior figures indicated that sales were flat in nominal terms in November and December, instead of down 0.5 per cent and 0.4 per cent as originally reported. The news that sales did not, in fact, fall sharply before Christmas is welcome. But how reliable is the claim of a rebound in January? The figure for November was first reported as a gain of 0.8 per cent, then as a fall of 0.5 per cent, and finally, as a zero change.

The zing in car sales in the first 10 days of February seems more solid evidence of recovery. But it is nothing to write home about. An estimated annual rate of sales of 6.4m units was encouraging compared with dismal expectations of only 5.8m and a 6.1m rate at the end of January. But in better times, an annual sales rate of 6.4m units would be seen as evidence of near recessionary conditions. And, as with the retail sector, the figures are notoriously volatile.

Bulls, however, will reach for the third arrow in their quiver: the recent revival of monetary growth. Bank reserves – the base for lending – have registered annual rates of growth of 20 per cent or more since last September. M2, a narrow measure of money, has grown at a double digit rate. Even M2, the targeted measure of broad money, is staging a lacklustre revival.



MICHAEL PROWSE on America

having grown at an annual rate of about 3.5 per cent in recent months.

Federal Reserve officials – at most half-hearted monetarists – are well aware that a similar revival of monetary growth this time last year fizzled out. The figures, nonetheless, help justify the Fed's "wait and see" stance on interest rates. In his Humphrey-Hawkins testimony next week, Mr Alan Greenspan, the Fed chairman, seems certain to repeat his favourite mantra: that the monetary easing already in the pipeline will be sufficient to revive the economy.

So far the nation's factories are paying scant attention. On Friday, the lift from retail sales was largely countered by far worse than expected production figures. Industrial production fell 0.9 per cent last month; and revisions – nearly as large as those for retail sales – showed falls of 0.3 per cent and 0.4 per cent in November and December. The decline was led by cars but affected every sector, from consumer goods and business equipment to utilities. The feared "double dip" recession is thus a reality for much of corporate America. It has already caused the loss of some 300,000 payroll jobs since the autumn.

Optimists are unmoved. They insist the fall in production is old news because it was a response to the weakening of demand in the final months of last year. Now that demand is rebounding, business confidence will revive and output will start growing. After a weak first quarter, the economy is thus poised for recovery

in the spring. The logic is fine. But bear in mind two important caveats. In the first place, the evidence for a rebound in demand is still tentative. More importantly, consumer fundamentals remain weak. Savings rates are low, employment prospects are dicey and real incomes are subdued. Any revival in spending could easily prove to be short-lived.

In economic or not political terms, the precise timing of recovery is less significant than the medium-term outlook for growth. On this, opinions differ markedly. If you seek reassurance, the best place to look is exports. The combination of cost-cutting in manufacturing and the weak dollar has transformed the outlook for US exporters, which have been gaining market share since the mid-1980s. On some measures, German wage costs are now 50 per cent higher than America's. Far from losing competitiveness, some economists claim, US industry is actually in better shape than at any time since the 1960s. Gloom about the long-term outlook is thus badly misplaced.

Those focusing on the public sector cannot swallow this optimism. Given rapidly falling inflation, they say sharp rises in bond yields – back almost to 8 per cent – reflect growing alarm about fiscal trends. Even if congressional Democrats' plans for middle-income tax cuts are fully funded by higher marginal rates on the rich (still a big if), the outlook is for another decade of huge deficits.

These lakes of red ink represent negative public savings. The long-term consequences of low saving and investment are dire. At a recent seminar, economists at the Brookings Institute, a Washington think tank, argued that the US economy's sustainable growth rate may now be only a miserable 1.7 per cent a year. Yet the chances that politicians of either party will take serious steps to improve productivity growth remain depressingly slim. In my book, therefore, the bears still have the best of an increasingly complex argument.

A world of mad plumbing

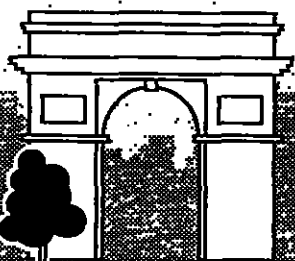
Some years ago, my family and I, together with another family of close friends, spent a summer holiday in a rented villa in southern Italy. It was a wonderful place right at the top of a steep hill, quite private, very slightly breezy and much cooler than the baking beaches far below.

There was just one drawback. Since the month was August, there was too little water, and almost none of that little reached the top of our hill. Down below, near the baking beaches, the Neapolitan masses splashed themselves and even their cars with reckless abandon; whereas we, in our superior eyrie, remained hot, bothered and dirty.

A desperate situation called for desperate efforts. So when the womenfolk set off down the hill with the children to enjoy the baking beaches and the company of the Neapolitan masses, we menfolk climbed to the attic with lengths of plastic piping in the hope of improving the water supply. We laboured at this task for several days, but of course we did not make any difference at all.

Nothing has reminded me so much of those long and fruitless sessions with the hosepipe as the strange spectacle of the general election campaign now on view in Britain. The deadlock in the opinion polls suggests an electorate divided between black cynicism and weary incredulity. But the politicians, enclosed in their world of mad electoral plumbing, continue to tout their frenzied schemes for tinkering with the structures of state.

This one proposes to insert a pipe at the higher tax bracket and connect it to the family allowances lower down. That



IAN DAVIDSON on Europe

one promises to disconnect the filter on National Insurance contributions and lay a pipe line across to the National Health Service. A third, with a T-joint at the petrol tax, would make a diversion into road building. All this, of course, in the belief that a few lengths of electrical piping will turn a trickle of votes into a flood.

The performance is absurd and, worse, dated. Some will cringe at the manifest intention to bribe the electorate. The day Mr John Major's office promised there would be no electioneering Budget was also the day it spoke about a cut in income tax. We may regret that politicians make their way by siphoning money out of the pockets of their adversaries into the pockets of their friends, but that is their trade.

But it is the intellectual self-deception which is most discouraging, as if the politicians' mad plumbing could increase the total flow of economic resources. Everybody knows that Britain's macro-economic policy is now largely defined by the objectives of the European Monetary System. This should mean the beginning of a greater political con-

sensus. Yet British politicians continue to offer their patent economic nostrums, like throwbacks to a Keynesian time-war of 30 years ago.

In this respect, as in so many others, Britain and France seem to exist in different periods of history. In 1984, France moved over to an anti-inflation policy of monetary and budgetary restraint, in explicit acceptance of the logic of the EMS, and since then there has been no serious discussion of macro-economic policy by the mainstream parties on either the left or the right.

The most controversial issue used to be the debate over whether to privatise state-owned companies; but even this ideological argument has lost its excitement, since the Socialists now admit the principle of partial privatisation.

Naturally, the Socialists are unhappy about the level of unemployment; as well they might be, because it will lose them the next election. But no mainstream politician of any weight promises to perform a macro-economic conjuring trick with a couple of yards of electoral tubing. Nor do they propose a significantly different macro-economic policy, to get faster economic growth and lower unemployment, because they all accept the over-riding logic of the EMS.

Perhaps they are wrong. Perhaps politicians have a public duty to challenge the logic of the EMS as it is currently operating – that is to say, as a machine for low growth and high unemployment.

To be sure, the international environment is going through a recessive phase, with a corresponding knock-on in Europe; but the passive logic of the evolving EMS, as it is run by

the Bundesbank, has a recessionary effect of its own.

In the final phase of European Monetary Union, the management of a single monetary policy can be set in a broad European fiscal context, which member governments can influence through Community institutions. By acting collectively, governments will recover a degree of control over their economies, which they have lost at the national level. During the preparatory transition, by contrast, they are fiscal prisoners of a foreign central bank whose independence can also be described, literally, as irresponsible.

The phasing of Emu, as fixed in the Treaty of Maastricht, means that the transition to a single currency will take at least another five years. Well before then, there may be some spontaneous recovery in Europe; but there seems no prospect of the kind of growth which would bring a steady fall in unemployment.

The problem facing Europe's politicians is this: are they prepared to accept for another five years the consequences of a machine that produces high unemployment? The French Socialist party is about to pay a heavy price for eight years of conservative, pro-European economic policy. The big winners in next month's regional elections will not be the conservatives, but the protest parties: the National Front, the ecologists and the Communists, who will probably share 35-40 per cent of the total vote.

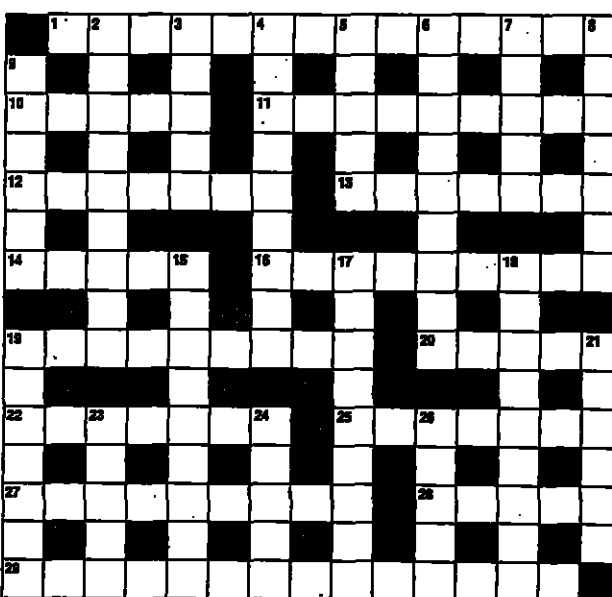
There are only three logical choices: to opt out of Emu, to accelerate the process, or to grin and bear it. The one option which is self-delusion is mad electioneering plumbing.

How to get 2 across. Here's a clue. Fly Upper Class to Boston before April 30th and we'll give you 2 economy tickets free. Easy, eh? So what's the mystery? Call 0800 547 747.

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- | | |
|---|--|
| 1 (8,6) | 2 Forced to go into service and deeply affected (9) |
| 10 No right to praise new colour (5) | 3 Opening joke (5) |
| 11 Knock around with a chap with a title (9) | 4 Possibly pots palms for brightening up the street? (4,5) |
| 12 How to terminate the class system? (5,2) | 5 Easily made and hoisted a flag (3,2) |
| 13 Persist in the conversion of clergymen (7) | 6 March men, perhaps (9) |
| 14 Light cutting instrument (5) | 7 The main comings and goings (5) |
| 15 Prepare the duvet for a makeshift bed (9) | 8 Catches, as one comes drunkenly home (5,2) |
| 16 Units seen in one eastern country or another (9) | 9 Is the first murder victim a girl? (7) |
| 17 Silas shows fibre when in trouble (5) | 10 Rush over to meet (3,5) |
| 18 But Arctic fur doesn't come from it (7) | 11 Deserted, being completely irresponsible (9) |
| 19 Dingy church has a place in modern history (7) | 12 Stubborn stain to be removed (9) |
| 20 There's no end of cats here (4,3) | 13 Suggested one politician was untruthful (7) |
| 21 Enjoying favour (5) | 14 Enjoying favour (5) |
| 22 Shun, one that's in rising demand (5) | 15 Famous Athenian doctor in the money (5) |
| 23 Birds skipping over the water (5,3,6) | 16 Help an upstanding girl (5) |

The solution to last Saturday's prize puzzle will be published with names of winners on Saturday February 1.

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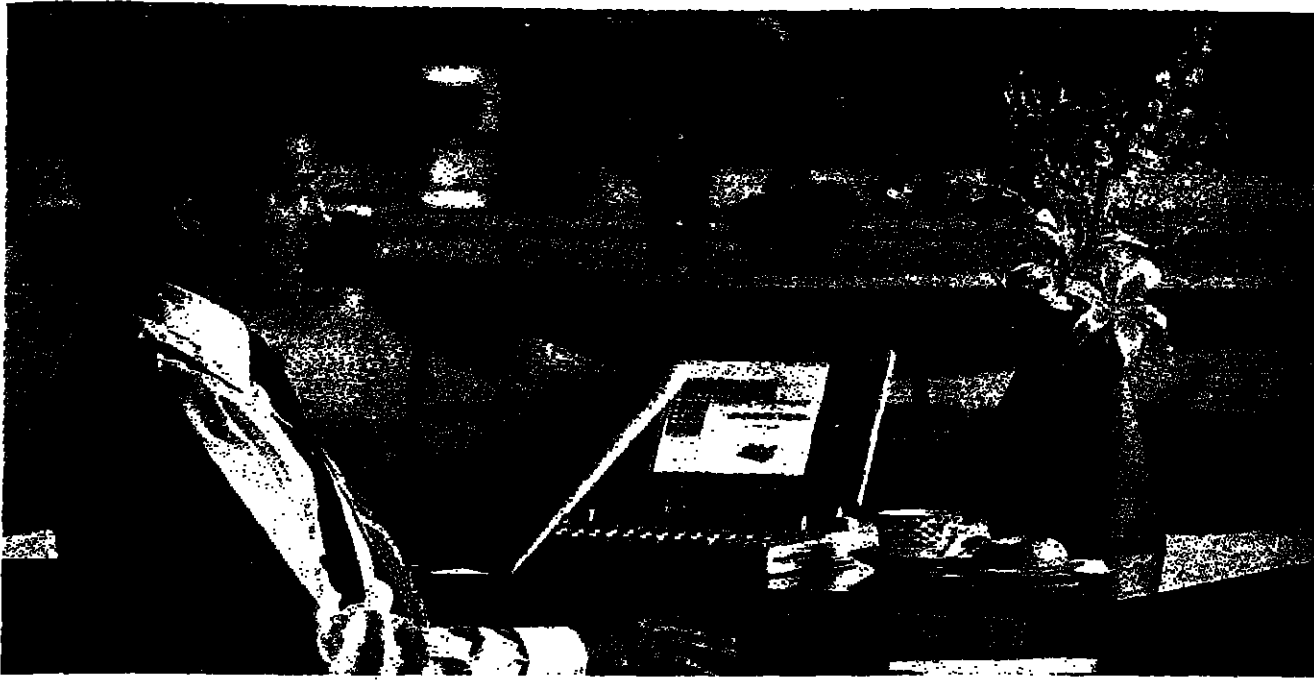
February 17 1992
Light
omy

FINANCIAL TIMES SURVEY

PORTABLE COMPUTERS

SECTION III

Monday February 17 1992



Left: Zenith's MastersPort 386SL notebook computer; and right: Oric's new 486 notebook with removable hard disc, offering benefits of security and freedom to upgrade storage capacity.

Now the line between portable and notebook computers is hard to draw, says Alan Cane

Manufacturers' motto is 'smaller, faster, lighter'

PORTABLE computers are now set to play a central role in the fast-moving drama that is the world computer industry. The evidence can be seen in the wide-ranging deal struck last month between International Business Machines, the world's largest computer manufacturer, and Groupe Bull, the French national computer champion. Included as one of its more important provisions is an agreement for Bull to supply IBM with a substantial number - perhaps up to 100,000 a year - of its Zenith Data Systems (ZDS) portable computers. ZDS, bought by Bull two years ago, is, along with Toshiba of Japan, a pioneer in portable computing.

The deal also provides for the future development of Zenith's portable machines. IBM, is the world leader in desktop personal computers, but it has a dismal record in portables, where innovation counts for more than market muscle. Toshiba is the market leader in portables outside Japan. The deal

with Bull, therefore, plugs an important gap in IBM's product line while providing a welcome source of extra volume for the French company's manufacturing facilities. Further evidence comes from Apple Computer, the world's second largest PC company. It moved last year into "notebook" computers, lightweight computers capable of being carried in a briefcase, and sold 100,000 of its PowerBook systems in the first three months of its fiscal year. The result was earnings well above market expectations. If further proof was necessary, newcomers to the market are electing to make portables rather than any other kind of personal computer. An example is Nippon Computer Company, a subsidiary of the Japanese giant, Nippon Steel.

It is manufacturing notebook computers only, arguing that is the fastest-growing segment of the market. It is also marketing its products outside Japan for the time being, hoping to build a solid market base in the West before tackling the world's most competitive notebook market. What, these days, constitutes a portable computer? In the 1970s and 1980s, it was a machine that could be transported safely in a car boot. Compaq Computer of the US pioneered many of the design and manufacturing technologies that made it possible to lug around several kilograms of delicate electronics without damage.

The introduction of notebook machines, courtesy principally of Japanese manufacturers, capable of being carried in a briefcase, but featuring a full-sized screen and keyboard, changed that perception of portable machines. Now the dividing line between portable and notebooks is difficult to draw. Performance is similar - both operate off either mains power or batteries. Both have full-sized screens and fully-featured keyboards. Both use the most powerful microprocessor chips available with memory capacity to match. The motto for computer manufacturers has become

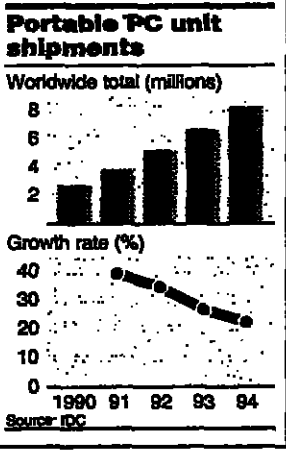
"smaller, faster, lighter." It is however, easier to distinguish between notebook computers and the latest variety of portable machine to attract attention: handheld, palmtop or pocket computers. These are more versatile than electronic organisers of the Sharp IQ variety, and more sophisticated than handheld terminals. They cannot match a back-lit display for legibility. Handheld computers can have important roles in business (for example, Gallaher's use of Victor machines, see page six in this survey), but the future of portable computing seems to lie with notebooks. These light, powerful machines are winning the fight for the hearts and minds of computer users, but the battle for their pockets is proving stiffer.

Like the rest of the computer industry, the portable sector has been hit by the recession in the US, parts of Europe and Australasia and by plummeting prices. Even the once-booming Japanese market has lost some of its bounce. The result is that explosive rates of revenue growth predicted for most areas of the portable market were not sustained through 1991. The market for notebook machines, for example, which some thought would grow by 50 per cent last year grew only about 40 per cent, according to data from IDC Europe. It suggests the overall mar-

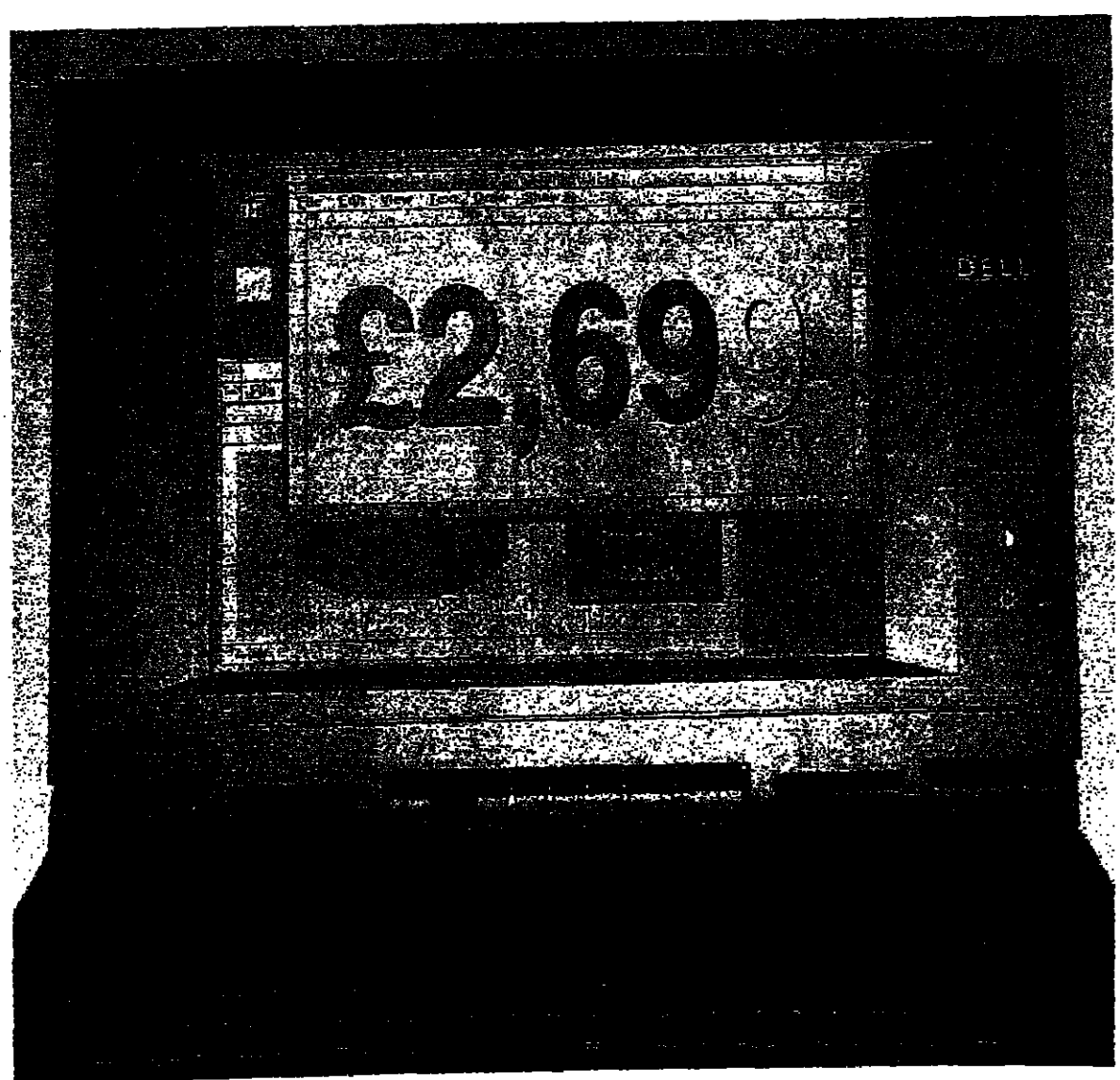
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Editorial production: Michael Wiltshire



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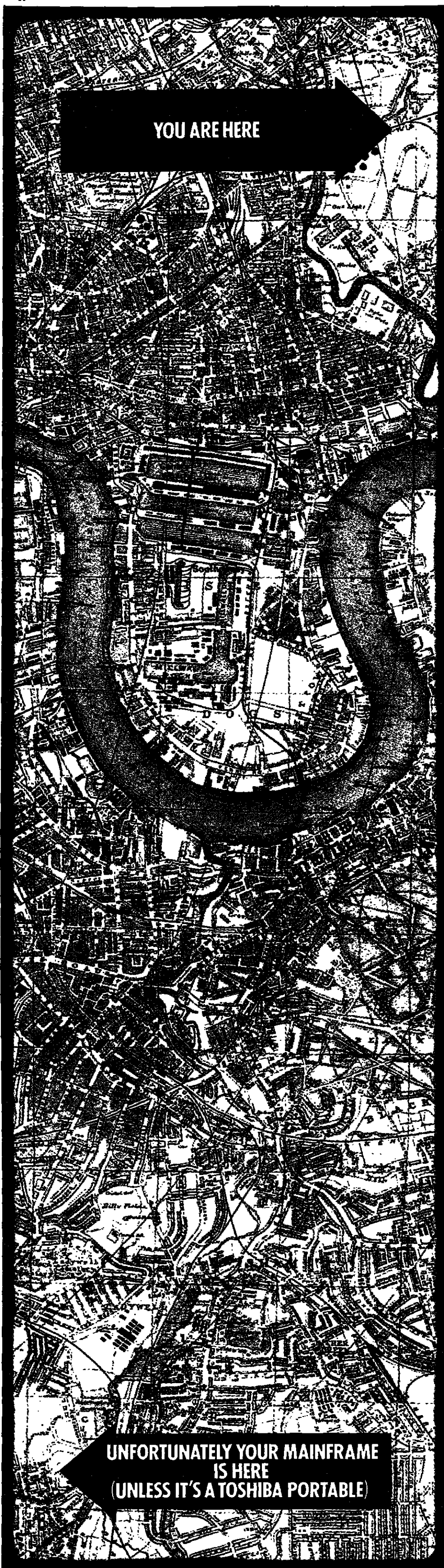
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PORTABLE COMPUTERS 2

The large potential market for portable computers in Japan may provide the 'home platform' for manufacturers to make an even bigger impact in world markets, says Steven Butler

Strong stimulus for further research in Japan

THE international success of Japan's portable computer makers is an anomaly.

In nearly every industry in which Japan has made an international impact, from cars to television sets, Japanese manufacturing companies have first established successful products in the home market. With the home base secure - often effectively closed to foreigners - and products well tested, they moved overseas, modifying products only slightly and achieving greater economies of scale in manufacturing.

In portable computers, however, the pattern was reversed. Toshiba, formerly an also-ran in the Japanese computer market, in the last decade established a big presence first in Europe with its innovative IBM PC-compatible laptop computers, then in the US, and finally in Japan.

It was Toshiba's experience overseas that helped it crack the Japanese market, where it now claims up to a third of portable computer sales.

Toshiba's experience is a reflection of the broader strengths and weaknesses of the Japanese portable computer industry. While Japanese PC-makers have built a strong presence in the international market for portables, they have not, as in some other industries, simply smashed the competition.

Japan's technology for making computer hardware may be second to none, but for the

export market Japanese makers still depend on foreign-designed operating systems and software that have not yet caught on fully in Japan itself. Japan therefore has not provided the kind of secure and stable market for computers that has supported other export industries.

Indeed, Toshiba faces a constant struggle to maintain its market share everywhere. It is sometimes trumped by a new product offered by Compaq

NEC believes that only 20 per cent of potential demand for portable computers in Japan has so far been taken up

overseas, and in Japan it has failed to keep NEC, Japan's biggest PC-maker, out of its established territory in the portables market.

While Toshiba enjoyed a 43 per cent share of the laptop and notebook computer market in Japan in 1989, this fell to 33 per cent in 1990, although its Japanese sales grew by 25 per cent to 250,000 units.

In the current fiscal year, to the end of March, its market share is thought to have fallen again, with sales projected at 225,000 units, according to the company.

In contrast to Toshiba's experience, NEC, the much-larger champion of the Japanese market with over 50 per cent of desktop and portable

PC sales, has made little impact overseas in PCs. NEC has been handicapped outside Japan by the lack of an internationally accepted computer operating system.

NEC uses a proprietary Japanese language system that accounts for about 60 per cent of the Japanese market (including sales by Seiko Epson of compatible machines), but is completely useless overseas. The option of simply exporting what succeeded in the home market therefore never existed.

NEC's domination of the home market has been eyed enviously by every other manufacturer, from Toshiba and IBM to Apple. Last year, IBM led 22 other computer companies in establishing a common operating system in an attempt to spur sales.

The system, DOS/V, is a derivative of the MS-DOS operating system used in IBM PCs and compatibles, which uses DOS/V operating system. Compaq is planning to boost its presence in Japan.

Apple, whose sales of desktop machines in Japan have been rapidly growing, has also made a successful launch of its Powerbook notebook computer, which is manufactured by and designed jointly with Sony.

And yet, in spite of all of this activity that challenges NEC, NEC's PC 9800 series computers so far appear unstoppable. Competitors admit that NEC's share of the market for portable computers continues to grow. According to NEC, its

share of all PC sales now comes to 53 per cent, including 38 per cent of laptops, and 37 per cent of notebooks in the first half of 1991.

With 4.86m PC 9800 series computers already delivered to the market, many customers are readily returning for smaller, more powerful versions of the same machines so they will not have to scrap old software and programmes. And while Toshiba was a leader in introducing powerful computers in a small package, the lead has now basically vanished.

Full-sized desktop machines are often difficult to accommodate in crowded Japanese offices

Toshiba's main selling point is that users will have instant access to an international body of software. Yet for most users, the 12,400 software packages available for NEC computers,

plus the cost of switching operating systems will be enough to keep them buying NEC products. The good news for all the companies is that there is plenty of growth left in the market since the penetration of PCs in Japan has been much lower than in Europe or North America. NEC, for example, believes that only 20 per cent of potential demand has been taken up so far.

The stunning improvements in the capabilities of notebook computers since they were introduced a few years ago has stimulated demand in Japan. This is because full-sized desktop machines were often difficult to accommodate in crowded Japanese offices.

In spite of the poor economic climate, domestic PC shipments were up four per cent in the six months to the end of October, while the market share for notebooks computers rose from 28.4 per cent to 31.1 per cent.

Even though demand has probably fallen in the subsequent months, the prospects for further growth in the portable end of the market will provide plenty of stimulus for computer companies to continue research into areas where they are already strong, including LCD displays, memories, miniature disk drives, batteries and miniaturisation in general.

The Japanese market could yet provide the platform these companies need to make an even bigger impact overseas.

Dozens of clone-makers enter the fray, reports Louise Kehoe

US notebook market surges ahead

PORTABLE personal computers are one of the few bright spots in the recession-plagued US computer market. While sales of most types of computers have stagnated over the past year, demand for light-weight, carry-along portables is growing apace with the introduction of dozens of new "notebook" models driving market growth.

After disappointing sales in 1990, when shortages of disk drives, flat panel displays and semiconductor chips stunted market growth, US notebook computer sales took off last year, rising to an estimated 1.4m units.

By the mid 1990s, annual US portable computer sales could rise to 5.2m units according to International Data Corporation market researchers. However, the notebook computer market is not recession-proof. Although sales volumes are growing, prices are falling precipitously.

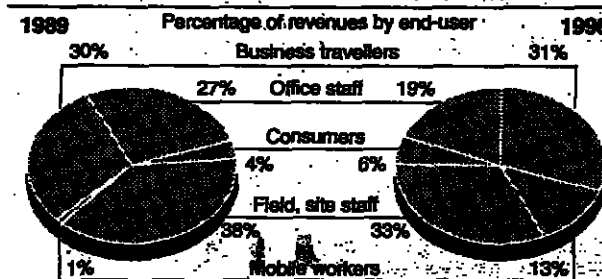
Dozens of "clone" makers, searching for more profitable ground as desktop personal computer prices plummet, have entered the notebook computer market offering lower-cost alternatives to the brand-name products that until recently dominated the field.

Apple Computer which entered the notebook computer market just four months ago, has almost cut the US price for its low-end Powerbook notebook computer by 12 per cent.

Simultaneously, Dell Computer cut its notebook prices by about 15 per cent while slashing the price of desktop personal computers by up to 35 per cent.

Other computer manufacturers are expected to follow suit, extending the industry's desktop computer price war into the portable computer segment and bringing the average price of a notebook computer down

Portable computer market in the US



Source: IDC

to well under \$2,000. Early market leaders in the US portable computer market have been Compaq Computer and Tandy of the US, the Zenith Data Systems division of France's Groupe Bull, and Japanese makers Toshiba and NEC.

Over the past year, however, some 40 or more computer companies launched new portable computer products in the US intensifying competition and driving down prices.

Sitting strangely on the sidelines of the notebook computer market is computer giant International Business Machines. After several failed attempts to penetrate the portable computer market IBM is expected to launch its first "true" notebook computer later this month with an aggressively priced model that matches the performance and features of competing products.

IBM also has agreed to resell portable computers manufactured by Zenith Data Systems, a unit of Groupe Bull as part of its technology sharing pact with Bull.

IBM's entry comes as the focus of the notebook computer market is shifting from the individual purchaser to corporate buyers.

Like their desktop predecessors, notebook personal computers were first adopted by

computer enthusiasts and then by those who recognised their value as a business tool. Now numerous US companies are equipping their field personnel - sales and customer service representatives - with notebook computers.

Large-volume contracts to supply these machines are coveted by all manufacturers and deep discounts on list prices are typical.

Even as the pricing patterns of the portable computer market are aligning with those of the more mature desktop arena, technology advances are creating opportunities for portable computer makers to differentiate their products and avoid the low-margin "commodity" product trap.

Flat panel display technology, for example, is rapidly evolving to create crisp, colour, high resolution screens for portable computers. Flash memory chips are emerging as a compact and more rugged alternative to magnetic data storage technology-based disk drives.

Power management technology is another area in which computer makers find room to differentiate one notebook computer from the next.

Compaq Computer's latest offerings in the notebook computer category, for example, focus upon the pressing

demand for prolonging battery life.

Compaq has developed a patented low-power backlighting system for the computer display, normally the most power-hungry element of a notebook computer. The Compaq lighting system saves up to 50 per cent of the power consumed by earlier display designs.

Semiconductor technology advances are also contributing to the effort to reduce power consumption and extend battery life. The portable computer of the future will incorporate "wireless communications" according to many industry experts.

Among US computer manufacturers, Apple Computer is actively pursuing this trend. Last year, Apple filed a petition with the US Federal Communications Commission (FCC) that, if approved, would let computers transmit and receive information over radio waves instead of through a wired network.

Miniaturisation of the personal computer has not stopped at the 4 1/2 to 7 1/2 "notebook" size.

A new category of personal computers that is beginning to show promise is the hand-held or pocket computer. US industry leaders in this emerging market include Hewlett-Packard and Pocket Computer.

On the horizon is yet another new type of portable computers known as slate computers. These notebook-sized devices will replace the familiar keyboard with an electronic pen. The user will simply write on the "slate" or point to icons to select functions.

Numerous applications are envisaged for these pen-based computers among people who do much of their work while standing or moving around.

Doctors and nurses might use them to update patients' notes or order tests, for example. Software that enables the computer to interpret handwritten notes has been developed by Go Corporation, a California start-up.

Microsoft, the leading supplier of PC software, is also developing handwriting-recognition software that could be used as an extension of its existing PC operating systems. Grid Systems, one of the pioneers of the portable computer market, offers a slate computer with handwriting recognition capabilities.

IBM and Apple Computer have both expressed great interest in the potential for this new technology. Market researchers at IDC Strategic Decisions predict that sales of slate computers will top \$1.5bn by 1995 and could become a \$7bn market by the end of the decade.

Advances in technology

Continued from previous page portable machines without serious compromises over performance or price.

Where a combination of portable and desktop computing is essential, there are docking pods, desktop units to receive the portable processing unit providing it with better screen, keyboard and communications with other computer systems.

There are a couple of caveats: there is some way to go in power management techniques and the development of full colour, high definition screens before portable computers will be the equal of desk-top machines.

High definition liquid crystal colour screens are already available, but in small quantities. They are complex to manufacture. Yields are low - less than 50 per cent, at times - and prices are high. Amstrad of the UK, one of the first of the low-cost suppliers to realise the growth potential in portables sells its ACL 386SX for

\$3,999 in the UK. Sharp's equivalent is \$5,995; Toshiba's is \$5,450. There is a market where conventional IBM clones can be had for £1,000 or less.

Battery technology, despite research which has made possible nickel-metal-hydrate and lithium batteries as a potential replacement for the common used nickel-cadmium cells, is advancing more slowly than any other aspect of portable computing.

The most promising technique to data has been power management - controlling software which switches off the power to any part of the computer not actually being used. Rotating disk drives and illuminated screens soak up power rapidly, for example.

The performance of the tiny disk drives found in portable computers has improved remarkably.

IBM, for example, has developed a 3.5 inch drive which it calls "Corsair" capable of storing a gigabyte (billion bytes) of

data. In a short time, the 60 megabyte (million bytes) drives commonly found in today's portables will look like museum pieces.

Rotating magnetic memory, however, may well give way to "flash" or "solid" semiconductor memory which retains information stored in its circuitry even when the power is switched off. Flash memories can easily be programmed and erased.

Intel of the US, the world leader in flash memory has recently signed an agreement with Sharp of Japan to develop jointly succeeding generations of flash memory chips.

Announcing the deal, Mr. Richard Pashley, Intel's general manager, looked forward to a portable computer less than an inch thick and weighing only about 250 grammes. At a price of \$200 and with a 200-hour battery life, he thought such machines would be available by the end of the decade.

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PORTABLE COMPUTERS 3

THE EUROPEAN MARKET

Notebooks claiming lion's share

EUROPEAN companies have still to make much of a mark in the fastest growing segment of the personal computer market.

Some 45m personal computers should be installed throughout Europe by 1994 of which almost 20 per cent will be portable, according to the market research consultancy, Romtec, and notebooks will account for 73 per cent of the portable market, equivalent to about 6m units.

Mr Bolko East, marketing executive director for Siemens

Nixdorf's reseller division, argues that notebook machines are already claiming the lion's share of the portable market and will soon, through superior ease of use, put paid to the bulkier laptop machines.

But the world and European leaders in portable machines are the same: Toshiba of Japan, Compaq of the US and Zenith Data Systems, a US company now owned by Groupe Bull of France.

European-owned companies may have a strong presence in their home markets, but it is

not reflected across the continent.

Amstrad, for example, leads the UK laptop market with a 32.5 per cent share by volume ahead of Compaq with 18.5 per cent and Toshiba with 17.5 per cent according to the latest figures from Romtec. (By value, Compaq leads and Toshiba is in second place).

The challenge to European-owned suppliers, however, remains to learn to compete with the major US and Japanese producers.

And they will be fighting on their own territory. Toshiba not only sells computers in Europe, it manufactures there as well. Its Regensburg, Germany, production facility makes about one third of the Toshiba portables sold in Europe.

The company's investment in the Regensburg plant now comes to about DM80m; it has just begun production of printed circuit boards there.

The plant includes research and development facilities. According to Toshiba, "by situating such research and development departments directly in Europe, Toshiba has made sure that despite recent pressure in the portable market, it will continue to retain leadership of the European market in terms of technology."

Compaq has been manufacturing systems for European distribution since 1988 at its 530,000 sq ft manufacturing plant at Erskine near Glasgow in Scotland.

It makes its most advanced portable computers there, partly, it seems to avoid onerous US duties on "active matrix" colour flat panel displays.

The US government's decision to place a duty on the expensive TFT colour displays gives Compaq and other US manufacturers of high performance laptops a curious problem.

The duty, designed to protect a handful of US manufacturers of similar displays, applies only to separate displays.

It does not apply to complete systems. If a display fails, the company would have a dilemma. Whether to ship the machine out of the country to replace the faulty part, or simply to replace the whole machine so great would the cost be to import and fit a new display.

European makers' best hopes may lie in niche markets, says ALAN CANE

The problem has an echo in the 14 per cent duty charged on semiconductors imported into Europe.

Organisations like the European Association of Manufacturers of Business Machines and Information Technology (Eurobit) argue that the duty is damaging European competitiveness, adding an average 2.5 per cent to manufacturing costs.

Semiconductors can make up to 60 per cent of the total cost of a personal computer or workstation. Eurobit is asking for the duty to be abolished, arguing it reduces investment and the competitiveness of European manufacturers.

What prospects are there for European-owned makers? There is no shortage of innovation. The UK company DIP, whose handheld miniature computer is the basis of the Atari Portfolio, showed that, as did Psion with its notebook-style Mobile Computer.

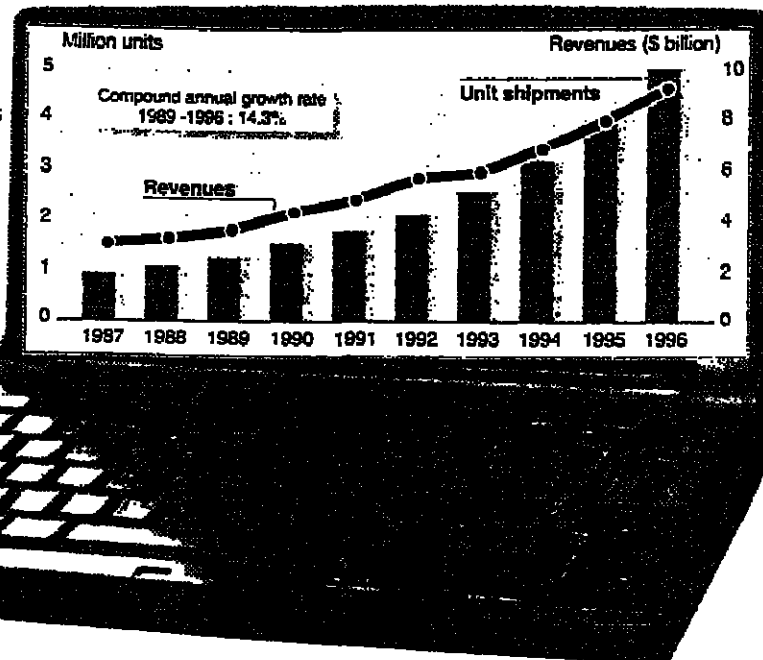
Both companies may have been somewhat ahead of the market. Psion, in particular, was unfortunate in failing to co-ordinate the launch of hardware and software for the Mobile Computer. The result was a missed window of opportunity. Psion is now concentrating on its core expertise in handheld devices for personal and commercial use.

Innovation in personal computing is, however, rapidly giving way to standard technology - microprocessors from Intel, operating software from Microsoft, tiny but high capacity disk drives. The secret of success is volume production and effective distribution.

Groupe Bull of France bought its position in portables through the acquisition of Zenith Data Systems of the US; the company has since suffered from distribution difficulties and from declining sales in the US.

A deal with IBM giving Bull access to IBM technology in

World market for portable computers



Source: Market Intelligence Research Corporation

exchange for equity and a promise to take substantial numbers of Zenith portables may prove a turning point for the company.

Olivetti of Italy designs and manufactures laptop and notebook computers through its Triumph Adler subsidiary.

Features include a common "docking station" - a desk-top unit into which portable computers can be fitted to give communications and other facilities. There is also an integral mouse pad to drive the screen pointer. The Triumph Adler machines are sold under the Olivetti label but also under the DEC logotype in Europe. Philips of the Netherlands retained its personal

computer interests when it sold most of its computer business to DEC last year. Now, according to the market consultancy Dataquest, it is fifth in Europe in notebooks. It is also a pioneer in systems which substitute input by finger or stylus for conventional keyboards. It intends to announce a product using this technology before 1993.

Siemens Nixdorf announced a high end notebook computer at the end of last year; it has been working with Matsushita of Japan to develop what Mr East of Siemens Nixdorf describes as a "mobile desktop" - a docking unit in which the notebook machine can be securely locked to prevent

theft. Mr East believes that this kind of computer system will eventually replace conventional desktop computers.

Europe's best hope may lie in niche markets. The UK company Husky, for example, specialises in ruggedised handheld computers for use in the field. The Prudential has bought 7,500 to equip its field sales force.

Logitech, an international company with its headquarters in Switzerland, is developing devices to humanise the computer; it markets a range of mice and trackballs specially suited to portable computers. It claims its "Trackman Portable" mouse is the most ergonomic available.

COMPUTER DISTRIBUTION

Pressures force changes

THE RECENT tumult in the computer industry has taken its toll on those who distribute their products and many small retailers in the UK have gone to the wall in the current recession.

While the market for personal computers was flourishing, the manufacturers did not pay undue attention to the means by which their products were distributed. Now that the market has become even more fierce, such competitive factors have grown greatly in importance. The computer distribution market looks ripe for change.

Some computer manufacturers such as Dell, the US group which also has a strong presence in Europe, have moved to supply products direct to the end-user themselves. The company argues that by being responsible for the

distribution of its products, it can offer greater flexibility and improved levels of service. But other forms of distribution, such as superstores and mail order look set to account for a growing proportion of computer sales.

At present, however, the market for portable computers in the UK still remains largely in the hands of distributors and dealers, although it is not as yet a highly profitable segment of the personal computer market.

Toshiba claims it has seen two developing trends in the market for portable computers - "the first is a move towards mass merchandising. As the price of portable computers diminishes, they are increasingly being sold through computer superstores and mail order outlets," it says.

The second development is that value added resellers (Vars) - which sell individually-tailored hardware and software packages to companies - have also seized a growing slice of the market for portable computers.

"The value added resellers (Vars) are becoming more important in selling an integrated solution as the portable computer increasingly becomes a component of a company's IT strategy," Toshiba says.

The value added resellers are selling a business solution rather

than a box. Big insurance companies, for example, are buying portables for use by on-the-road salesmen to give immediate quotes. Such portables are often supplied by the value added resellers who design specialist bespoke software needed to run the sales programmes.

Mr Jan Murray, who runs Vision Technology, a computer mail order company which last year opened the first computer superstore in Europe under the logo PC World, concurs with Toshiba's interpreta-

tion of the main trends in the market.

"I would say that portable sales are definitely growing compared with other forms of computers. But we have found that it has become a commodity market very, very quickly. Prices are coming down a lot faster than people thought and a lot of manufacturers who piled into the market have found that they have had to reduce prices to maintain market share," he says.

His company has reported buoyant sales of portable computers

both through its superstore and on its mail order side but he argues that the market is swiftly changing.

He detects a rapid move towards the notebook computers - "laptops are already becoming seen as old technology," he says.

PC World, which is run from a 30,000 sq ft site in Croydon, south London, sells mainly to small and medium-sized businesses but is also selling direct to individual business executives.

"If you are of a certain status, then you are likely to buy a machine to use in conjunction with desk top machines," Mr Murray says.

He claims that PC World is performing well and that the superstore concept will be extended this year. He plans to open a second

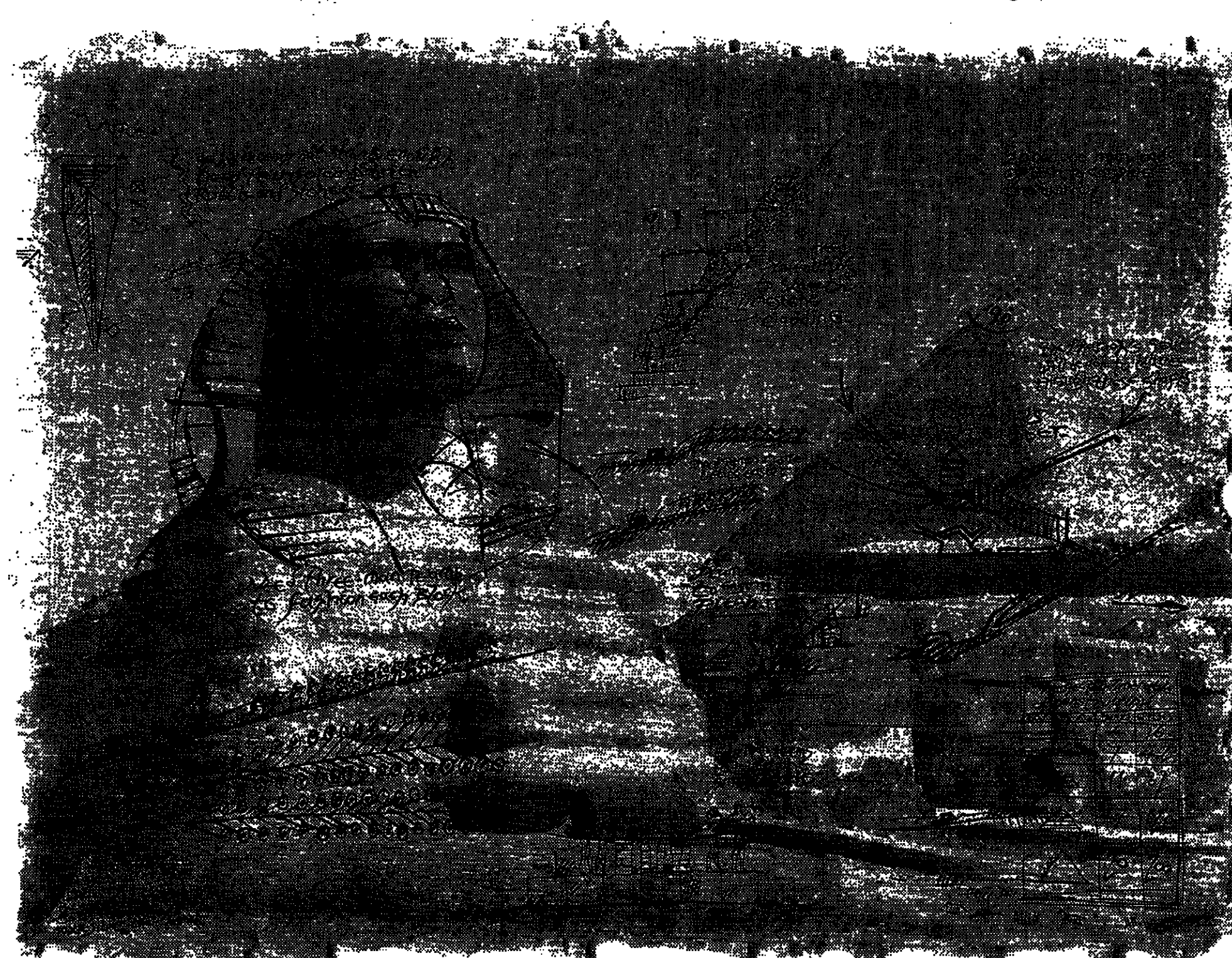
store in the Brent Cross area of north London at the beginning of May.

But the consumer market for portable computers is generally proving a difficult one to crack. Mr Alan Dickinson, buying director for Dixons, the UK's biggest electrical retailing group, says that the growth rate for mobile computers has not matched the early projections.

Dixons sells most of its mobile computers, ranging from £599 upwards, to individual consumers or small businesses. But he claims there is still considerable resistance to their high price, which can be 30 to 35 per cent higher than desk top computers with identical functions.

John Thornhill

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PORTABLE COMPUTERS 4

Software developers exploit growing market

Widening horizons

MODERN portable computers are now powerful enough to be used for software applications that were once confined to desktop machines. Faster processor 'chips' and more advanced display screen technologies allow portable computers to be used for far more than simple note-taking and 'personal organiser' tasks.

Software developers have recognised an opportunity to exploit a new and growing market.

Later this spring, personal computer software giant Microsoft will introduce a new version of its popular Windows environment - version 3.1 - which incorporates features aimed specifically at the portable computer market. Microsoft hopes to extend its dominance of desktop computing - with the Windows/MS-DOS standard - to the portable computer market.

Other software developers are keen to exploit the mobility and power of portable computers. Some build on existing applications and others bring innovative new applications to the market. There are signs, however, that there will be differences between the mature market for desktop software and the new market for portables.

Mr Stephen Arnold, chairman and managing director of the UK portable applications specialist Softa, points out that there are different types of portable computer user and different demands for applications software - "some people want a portable desktop - similar in function to the one in their office. Other portable users want something more job-specific."

Mr Arnold notes that job-specific, "field-force" software applications - such as those used by service engineers and

sales staff - require specially-built software and there is less need for standardisation - although historically people have been hit by the lack of standardisation on the desktop - it is not so necessary on portables - especially if you have to develop special applications software.

"Many players in the portable computing market are offering high-quality proprietary software. In the end, it is the context of the application that dictates what software you use - so you don't need to blindly assume that it must be standard MS/DOS," he says.

There are other signs that MS/DOS might not achieve dominance of the portable market. Toshiba, the Japanese manufacturer which dominates the portable computer market, announced in January that it would no longer 'bundle' MS/DOS with its computers - allowing purchasers to make their own choice.

And companies like Psion, which produces a range of hand-held computers, have equipped them with their own proprietary operating software. Despite this, it seems likely that MS/DOS - and when the new version arrives, Windows - will be the basis for much of the software for portable computers.

"The power of portables has improved so much that we can offer a full Windows environment now," says Mr Mark Edwards, Windows product manager at Microsoft in the UK. "We are introducing three specific features which will be important for portables: advanced power management; mouse 'trails' and optimised backgrounds for LCD screens."

The power-management features will be particularly welcome. Battery life on portables has improved - but it still

needs to get better. The new Windows environment will be able to detect when the screen and disk drive are not being used and turn them off to conserve power.

The mouse 'trails' make it easier to keep track of the cursor on the screen by leaving a trail of cursor marks. And the special backgrounds will make screens more readable.

Established software developers are happy that MS/DOS and Windows will make the transition to portables and are building applications in key areas.

Nextbase, a UK software specialist, has created Autoroute Express, a route-planning application, which sits well on

Software suppliers are introducing innovative products for portables

a portable computer - even the hand-held Poget computer.

"Our software is widely used on portable computers," says Ian Mercer, managing director of Nextbase.

Autoroute is, essentially, a simple application which lets you work out the quickest or shortest route from one town to another. The product covers all of Europe and the US with more detailed versions for the UK and France. Directions and maps can be viewed on the screen or printed out.

"We recognised the potential for the product on a portable and built the software to work well in a low-performance computer," says Mr Mercer.

Looking to the future, Mr Mercer says that the company plans to bring out a version for Microsoft Windows - "in my opinion, MS/DOS and Windows are so universal that they will be much more popular than

proprietary systems. People don't want to have to learn new ways of working."

Nextbase also intends to exploit the advantages of portability by using the emerging Global Positioning System (GPS), which uses satellites to transmit longitude and latitude co-ordinates.

"The price is still high - but it won't be long before it tumbles down to below a \$1,000. We have done some work into putting GPS into the Autoroute software. Then you will be able to see where you are on an on-screen map," says Mr Mercer.

Other software companies are working on the communications potential of portable computers. Kerridge Network Systems, a UK communications specialist, claims a world 'first' with a British-designed high specification modem for portable computers which comes with a wide range of software options.

"We have worked closely with Toshiba to develop communications software for the corporate environment both for remote and local connections," says Mr Nigel Hawley, general manager of Kerridge Network Systems.

Kerridge's products allow a portable computer to work like an old-fashioned terminal to a large mainframe system or as a participant in a local area network - "we've used special hardware which allows us to change the function of the modem using clever software. You can connect simultaneously to a remote mainframe and, say, a videodata system," explains Mr Hawley.

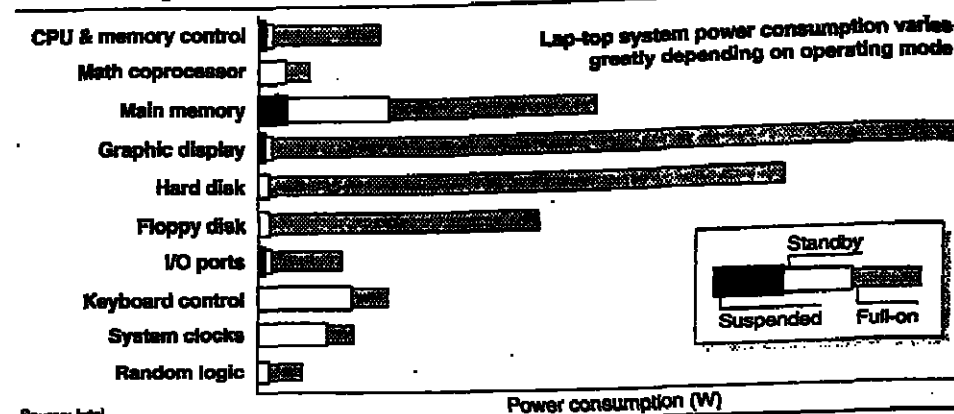
The Kerridge range brings portable computing full circle - giving it the potential to form an integral part of traditional data processing applications. This will certainly help to put portable computers alongside desktop computers as 'windows' moves into the corporate network and beyond. It might even mean the eventual disappearance of the desktop computer altogether.

Philip Manchester

Research intensifies to improve power management

Quest for longer battery life

How the power is used



Source: Intel

edly exploded while he was using it.

So far, the most promising, and safer, alternative has been nickel-metal hydride power-packs initially developed in Japan by Sanyo. NIMH batteries have recently started to appear in new portables including those from Toshiba and Dell. Manufacturers claim they can extend normal use operating time over NiCad batteries by up to a third and have the added advantage of being more environmentally friendly.

Some indication of the expected demand for these new power-packs is given by Matsushita, one of the big four Japanese battery-makers, which began producing NIMH batteries in late 1990 and said in November that it expected to quadruple production by the middle of this year.

However, the limited progress in battery technology has forced portable computer manufacturers to turn to other solutions to extend operating life between charges.

Until recently, most attention has focused on software implemented power management by using low power components like the CMOS chips - which made the first laptops possible - or highly integrated components.

Toshiba pioneered software power management systems by introducing features like auto-resume, pop-up battery power indicators and battery-backed 'hard RAM'. Other power management systems switch off power-hungry components such as screens and disk drives when they are not being used; some also monitor battery recharging.

Software-based power management solutions can enhance battery life, but some risk introducing compatibility problems, and more fundamental solutions are required to achieve the substantial power savings which portable PC users are beginning to demand.

More complex power management systems therefore depend upon a combination of hardware and software features. The most dramatic recent development in power management has been the complete redesign of the 80886 chip by Intel to produce the power-saving Intel 80386SL chip, unveiled at the end of 1990. The first notebook computer to take advantage of the new Intel chipset was the

Zenith MastersPort 386SL launched last July to popular acclaim.

Other manufacturers including Toshiba, Sharp, Compaq and Dell have now launched 386SL-based notebooks. Dell's machine, the System 325NC, is a colour notebook using the 386SL 25MHz chipset and a Dell-developed power management application specific integrated circuit (ASIC) resulting in battery life of up to three hours of normal use - longer than many monochrome machines.

Zenith itself has launched a faster, second generation machine, the MastersPort 386SL running at 33MHz. The US-based company, which is now a subsidiary of the French Groupe Bull, reached the market first because it had worked closely with Intel during the design phase and had a head start in designing the operating system necessary to take advantage of the SL's special

Options for extending the power of batteries are still limited

features. The SL chipset is actually two chips replacing 11 components in the standard 386 design, but the real key to the way it saves power is its ability to switch sections of the computer off when they are not being used and run them only when they are needed.

The use of an in-built 64k processor cache also helps by reducing the need to provide the standard RAM (random-access memory) with more than a drop of power.

What is special about the SL is not the power it uses, but the power it does not use," says a Zenith official.

What is more, the sophisticated power-management systems are mostly "transparent", so the average user does not even need to be aware of them.

Using the chipset, the Zenith MastersPort SL machines have three power modes: in use, standby (which is equivalent to dozing), and sleep, which is like being in a coma but not quite dead.

When the machine is running flat-out with disks whirring and screen on full brightness, there is little if any power-saving over the standard 386 chipset. But when the machine switches to the stand-

by-state, its power consumption drops to about 15 per cent of the peak rate.

In this state most of the essential functions are kept alive and some of the hardware runs very slowly, but moving a mouse or touching the keyboard is enough to arouse it.

By contrast, in a 'coma' almost nothing runs and power consumption falls to just 0.5 per cent of the peak rate. In this state the processor slows to 1MHz, essential data is stored safely away and the machine is all but switched off.

But it can be revived almost instantly either by pressing the power button or by a timer utility and returns to exactly the same place and function as when it powered down. Using a setup facility in ROM (read-only memory), the power switch can be configured either to trigger the sleeping state, or to turn the computer off in the normal way.

The setup facility also provides user access to the machine's other power-saving features.

Zenith is properly cautious about making exaggerated claims for its machines; however, in 'coma' mode, the batteries would last about a month.

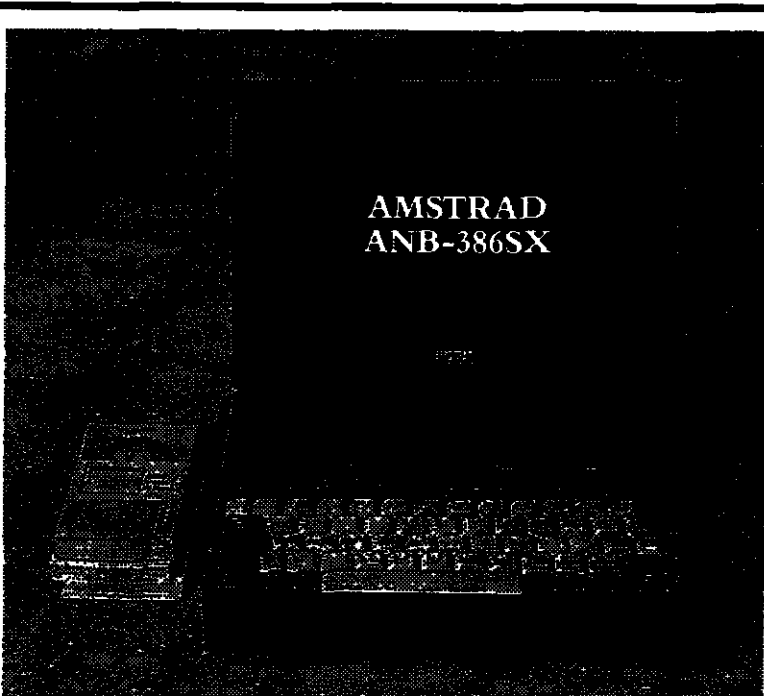
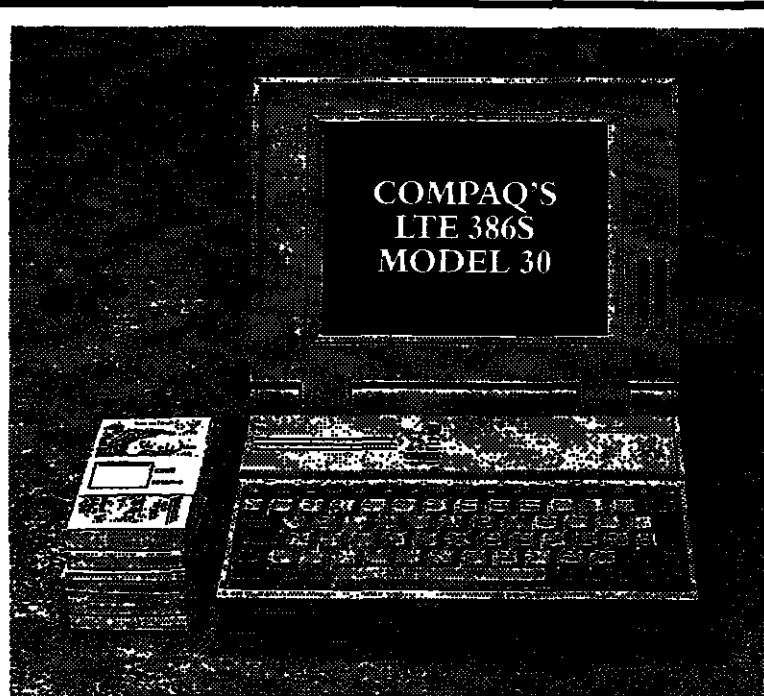
More importantly, powered-up and in normal use, they should last six hours or effectively a full working day, even when running 'Windows'.

Toshiba, which launched its rival T3300SL 25MHz machine with NIMH batteries last month, said the SL chip offers "power management facilities similar to those pioneered by Toshiba on previous portable PCs," and will give a battery life of up to four hours.

Some analysts are already predicting that shipments of SL chips will overtake shipments of standard 386SX chips in the notebook market segment within a few years.

But Intel is unlikely to have the market all to itself. Intel's arch-rival, AMD, has developed microprocessor technology which it claims will double the battery life of a portable PC without compromising processor performance. The new devices, which follow the Intel's DX and SX architecture, are designed to operate at 3.3 volts instead of the normal 5v and thereby also allow the use of low-cost alkaline batteries.

Paul Taylor



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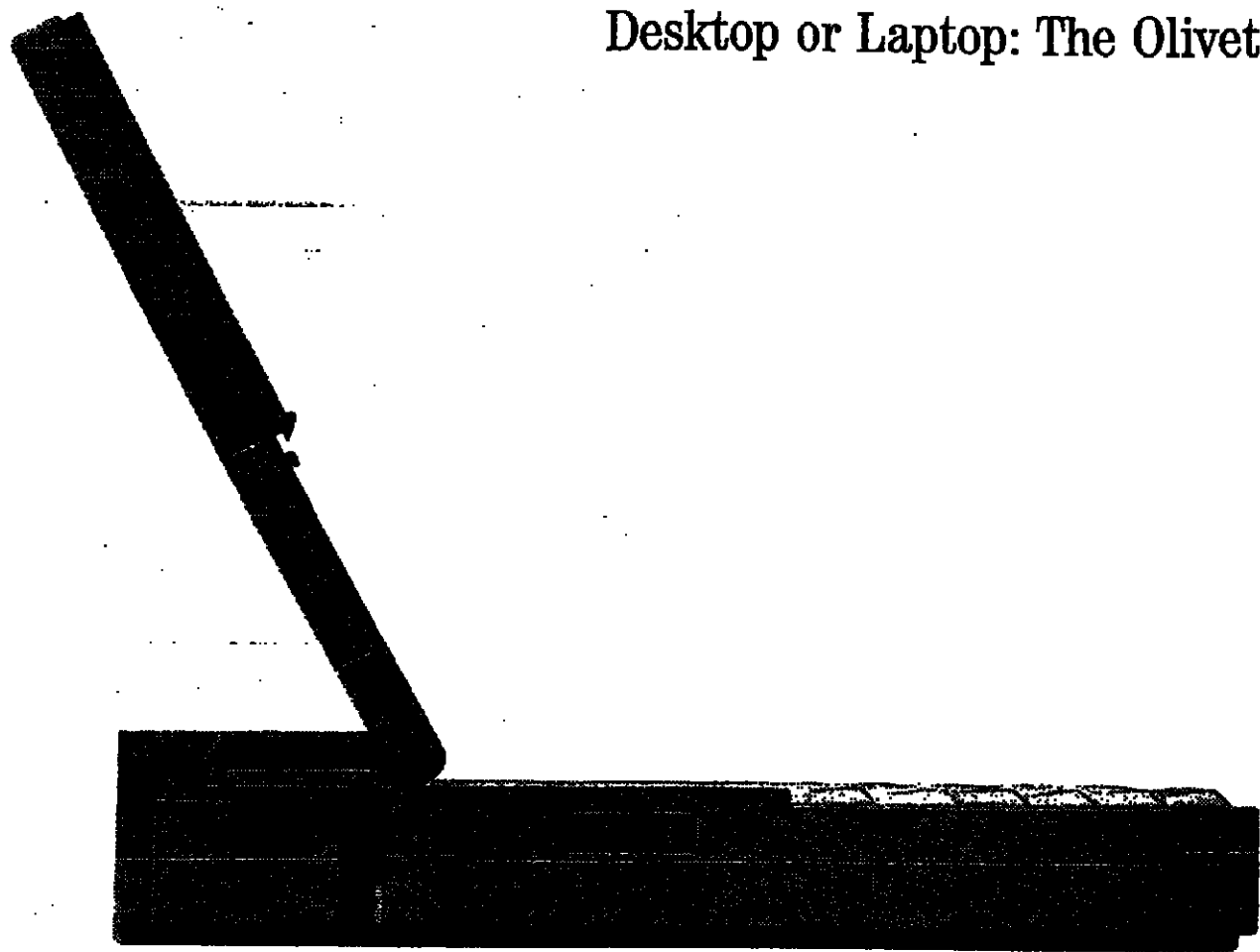
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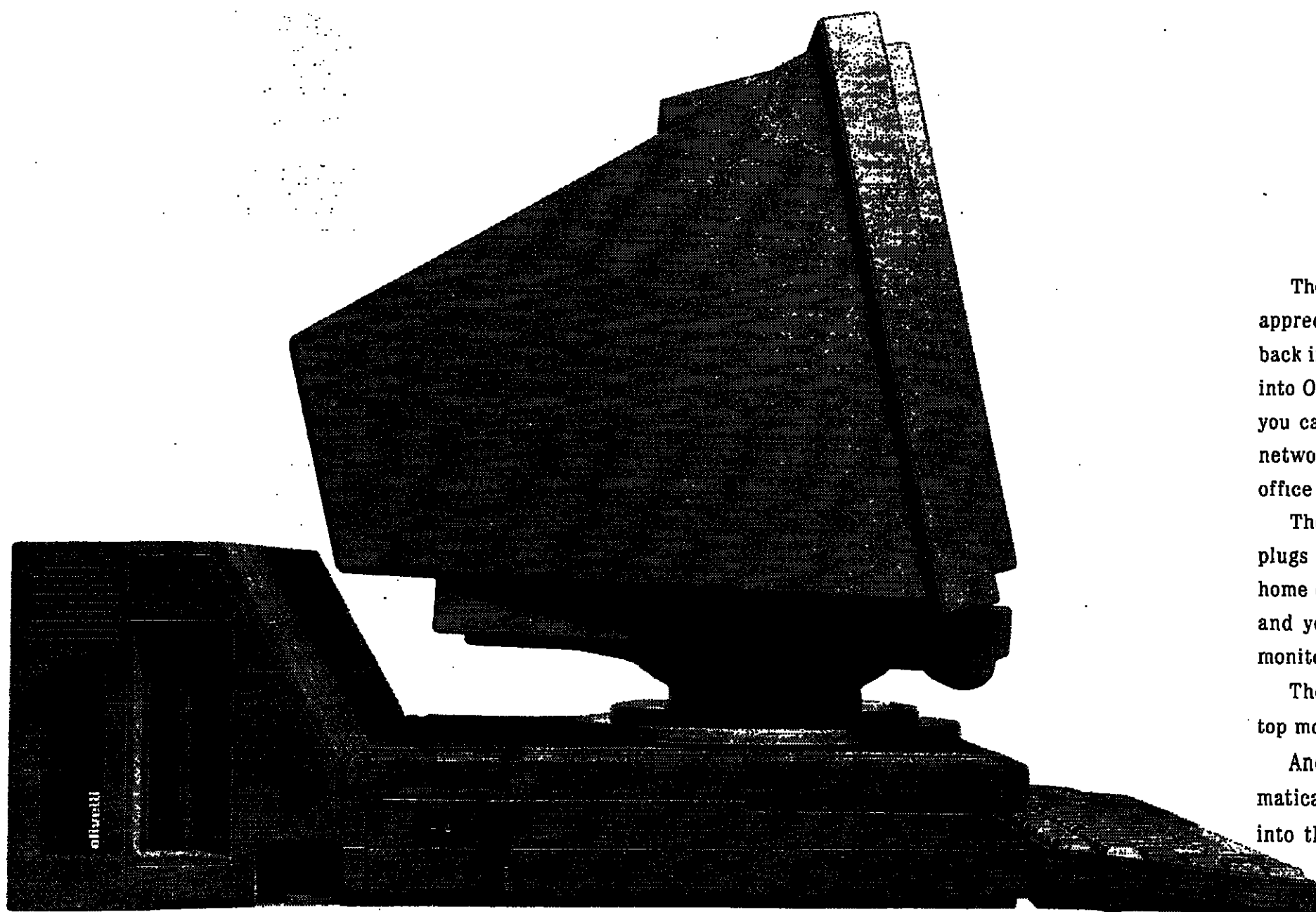
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PORTABLE COMPUTERS 6

CRISPER, clearer colour screens are increasingly in demand from portable PC users, who no longer see their machines as executive toys. Some users want to take advantage of more powerful colour software programs, some want to make a splash in business presentations and some simply want to join the in-crowd.

Now a handful of personal computer manufacturers is trying to meet that demand with high-definition, flicker-free, active matrix displays. Until now, users have had to suffer a variety of slow, low-resolution liquid crystal displays (LCDs) using passive matrix technology.

Among the active matrix coterie are Sharp, NEC and Toshiba with its 80486-based T6400 machines launched last month.

The T6400s use the first active matrix screens from Display Technologies, the joint venture set up by Toshiba and IBM Japan, two years ago.

So far, the duo is believed to have invested £214m in the technology and these 10.5ins screens are the project's first offerings.

The largest TFT (thin film transistor) screen so far manufactured, at 16.5 ins, was shown in Japan last month by Sharp, but neither this nor its 14 ins screen, seen two years ago, is yet in mass production.

Both passive and active matrix displays work on the same principle. By illuminating the right combination of pixels behind red, green and blue filters, they create the illusion of colour in the same way that colour photographs do in a newspaper.

But active matrix displays use three times as many pixels, each one controlled by a separate transistor. This independent control prevents light bleeding into neighbouring pixels to change the colour mix.

Active matrix screens are also sensitive to tiny changes in voltage, so they can display many thousands of subtle colours, depending on the software drivers.

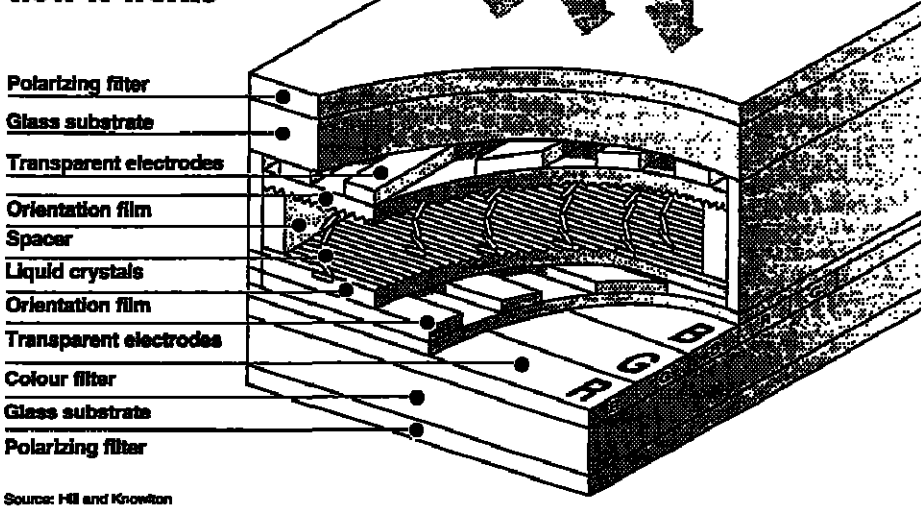
This, combined with the independent control of one transistor per pixel, makes them brighter, with better contrast and colour saturation than passive matrix screens.

But active matrix displays - using thin-film transistor technology - are difficult to make.

To produce a TFT screen to VGA resolution (640 by 480 pixels) requires about a million individual transistors.

Not surprisingly, manufacturing defects are high and the

Liquid Crystal Display: how it works



SCREEN TECHNOLOGY

Strong demand for clearer displays

result is many dead pixels. Because light can pass through these, thin-film transistor screens become punctured with distracting points of light.

Despite manufacturing improvements in the past six months, only 40-50 per cent of new TFT screens - which must be made in a single sheet - are usable.

Sometimes the yield is even lower. Until recently more than 90 per cent of screens were scrapped because of pixel damage, even though some manufacturers allow up to 10 dud pixels per screen.

As a consequence, the price of TFT portables is high: at \$6,000-\$7,000, two or even three times the equivalent of passive matrix machines.

Besides passive and active matrix screens, there are two other relatively common technologies in use: gas plasma and electroluminescence.

Unlike LCDs, which need back or sidelighting, gas

plasma displays generate their own light. A gas discharge trapped between two layers of glass generates the characteristic copper-coloured text on an almost black screen.

One particular advantage of the technology is that the screen refresh-rate is fast. This means users will not "lose" their cursors in Windows-type applications.

For the cost-conscious buyer, the price of gas plasma portables is considerably less than active matrix systems.

Toshiba's gas plasma T6400 runs \$2,000 cheaper than the TFT version, at \$4,500. IBM, NEC and Crid still offer gas plasma machines.

Electroluminescence (EL) is less popular even than gas plasma, as EL screens tend to be power-hogs.

They do have certain advantages, though: the refresh rate of their yellow and black screens is particularly fast and they are cheaper than TFT screens.

Electroluminescence can also support much larger resolutions than TFT: Toshiba's Sparc LT laptop workstation for programmers, for instance, has a resolution of 1,152 by 900 pixels.

Two relatively new screen

technologies - ferroelectric LCDs and metal-insulator-metal (MIM) screens - have yet to make their way into full commercial production, but could eventually supplant TFT technology.

The first ferroelectric LCD, demonstrated last autumn by Canon, was a monochrome screen with a resolution of 1,310 by 960 pixels. Canon expects to manufacture colour

'Buyers should seriously consider monochrome portables before plumping for colour'

screens, too, at an even better resolution and up to 24 ins in size.

Although the mass production of ferroelectric LCDs (FLCDs) may be three years or more away, these screens are likely to be significantly cheaper than TFT systems.

Sharp, one of the market leaders in screen technology, does not yet manufacture FLCDs, but has gone as far as to say that they will probably be the displays of choice for future portables.

Portable personal computers,

using metal-insulator-metal (MIM) screens, are likely to offer brighter whites and may eventually be cheaper than TFT machines. Again, however, mass production techniques for MIM screens have yet to be devised.

The first prototype MIM notebook, from Seiko-Epson, was shown in the US last year with a price tag of about \$4,500.

As far as buyers are concerned, the precise technology behind portable screens is immaterial. But they do need to know what to look for: clarity, brightness and contrast control are important, to enable users to run the machine under different lighting conditions.

Response time, too, is worth investigating, especially for power software such as Windows.

Something else to look for, especially if the machine is needed for presentations, is a screen that can be seen from a wide viewing angle.

Perhaps the key question buyers should ask is whether they need colour at all. The demand for colour is certainly high, say manufacturers, which will keep the cost of colour portables up for a year or two at least.

"Consumers are expecting the cost of these machines to fall quicker than it's going to," says Mr Yan Edbrooks, product manager for Apple's notebook computers.

"Demand is stronger right now than the production technology can deliver, a phenomenon that'll last through 1992." In many ways the intense demand for colour portables is illogical.

Toshiba research shows that 70 per cent of portable users are interested only in word processing. So buyers should seriously consider monochrome portables before plumping for colour, simply because it looks good.

Moreover, unless buyers can afford the best - which really means TFT at \$6,000 plus - they will have to make do with dimmer, slower, fuzzier, passive matrix screens. And the colours on many of these are poor, says Mr Nick Phillips, professor of physics at Loughborough University of Technology.

"The screens on portables that I've seen are an insult to the intelligence," he says.

"Those companies that have tackled the attempt to get good black and white have done the right thing."

Steven Sansino

MEMORY TECHNOLOGY

Capacity soars

that capacity with additional functionality and intelligence. This is not to suggest that the magnetic disk drive has lost its role in portables. The technology continues to be developed aggressively, with both the physical size and the capacity of the cost-per-megabyte stored coming down rapidly.

Physically, disk sizes of 2.5 ins diameter are now commonplace, with capacities of 20 Mbytes and 40 Mbytes now typical. This will rise to 60 Mbytes and 80 Mbytes this year, according to leading drive manufacturer, Conner Peripherals.

At 210 per megabyte stored on a Conner 40 Mbyte drive, it is impossible for semiconductor technology to beat disks on price. In terms of size, unit price and capacity, therefore, the majority of laptop and notebook portables will still be using magnetic disk drives.

There is one major weakness - power consumption - will be tackled in part by the reduced physical size of the drive.

Further big increases in portables' memory capacity are on the way, says MARTIN BANKS

motor and actuators needed, and in part by improving software to manage the power consumption. There is little chance, however, of this weakness being overcome sufficiently to accommodate the needs of the growing palmtop computer market.

Users have been seeking longer than three to four hours working life from their batteries, a capability the smallest hard disk drives cannot provide, even if the latest developments of 1.5 ins diameter disks means that credit-card-sized units can be produced.

It is with the palmtop machines that the PCMCIA standard, card format is starting to make an impact, though its presence is starting to be felt in notebook portables as well. The standard defines a physical form factor for add-in cards - about the size of three or four credit cards stacked on top of another. It also defines the connector pin-out and what can be achieved with them.

The objective, as with all standards, is to have as many hardware suppliers using it as possible, thus creating a market for card suppliers in all their guises. This is greatly helped by the convergence last year of PCMCIA standards with those of the Japan Electronics Industry Development Association (JEIDA).

The two are now claimed to be fully compatible, allowing JEIDA-standard cards to be used in PCMCIA-compliant computers and vice versa. The most obvious use for PCMCIA cards is as a hard disk alternative. Here a variety of solutions are on offer, including battery-backed RAM chips linked together as a module.

More recently, flash memory technology, a variant of electrically erasable programmable read only memory (EEPROM) technology from companies such as Intel, has come to the fore. For systems designers, the trade-off between the two is capacity, price and flexibility.

RAM-based units currently hold more data, but need to have a small lithium battery as part of the card design, in order to maintain the data as stored. Typical capacities to date are up to 10 Mbytes per card, though Santa Clara, California-based SunDisk, the company of PCMCIA president, Mr John Reimer, claims the lead with a 15 Mbyte card.

Predictions are for 100 Mbyte cards to be available within three years, though these will not beat magnetic disks on price per megabyte stored. Flash memory, on the other hand, retains the data as a read-only memory (ROM) does, without any need to keep refreshing it, but allows the system to re-write the data as required. This is analogous to magnetic media.

According to Mr Reimer, the most important aspect of PCMCIA is as a prompt for actively new developments, particularly in applications software distribution. Companies such as Lotus Development Corp have already ported its 1-2-3 spreadsheet to this format with success, where the application code is held in ROM together with RAM storage for the data the application generates.

Mr Reimer expects many other applications providers to follow Lotus' lead, especially as its joint effort with Hewlett-Packard in the development of the HP591X palmtop has led to sales of around 50,000 units per month.

As the latest Version 2.0 of the PCMCIA standard also includes the definition of other input/output capabilities, the potential opens up for combining memory with other functionality.

At present, cards offering fax/modem and local area network capabilities are under development, but as Mr Reimer says, "developers are limited only by their imagination in what they can now produce with PCMCIA technology."

One of its most interesting advantages stems directly from its exploitation of semiconductor technology - "we are reaching a point where the data held in a card memory is worth more than the cost of the system that generated it," says Mr Reimer. "Because of the technology, these cards can withstand a 500g drop and still function. A palmtop or pen computer can easily be dropped, breaking the machine and losing the data. With PCMCIA cards, that data can be recovered by putting the card in a new machine."

Application case study

Handheld system helps cut costs

IF NOTEBOOK computers are the thoroughbreds of the portable computing stable, handheld machines are the workhorses.

Limited in functionality but easy to use, light in weight and low in cost, they are suited to a range of business purposes for which larger machines are either too sophisticated or too expensive.

Or perhaps too bulky and inconvenient for easy use by a salesperson. Gallaher, the UK-based international group with its origin in the tobacco business, thinks so, anyway. Its involvement with handheld computers for its sales force stretches back 13 years and it is already planning for its next generation of systems.

The company is one of the world's largest tobacco enterprises but it also has extensive interests in spirits - Vladimir vodka is one of its brands - optical products, retail distribution and hardware.

It is a sophisticated user of computer systems for conventional data processing; its involvement with handheld machines, however, takes it into more controversial areas - the strategic use of information technology for competitive advantage and alignment of IT strategy with business strategy.

The tobacco business is on the decline but that is not according to Mr Michael Friend, general sales manager, reflected in Gallaher's performance. It has about 40 per cent of the UK marketplace and is selling more cigars and cigarettes than ever before - but in a different fashion.

Tobacco is not immune from the sweeping changes that have changed the face of retail distribution. Independent retailers now tend to obtain their stocks from cash and carry operations or from wholesalers, while the large chains are increasingly turning to centralised warehouses.

Evidence of the change comes from the decline in the number of Gallaher's direct accounts: from 50,000 ten years ago to around 19,000 today.

Gallaher's response was to look for a better way to deploy its 250-strong sales team. It believed it could improve efficiency and service by combining the roles of direct and indirect sales in a single force.

The precedents were not encouraging. Gallaher's competitors had tried similar moves with only limited success. It made sense, therefore,

to carry out a large-scale trial in a single region before rolling out the new approach nationally.

The region chosen was Western Division: the trial began in 1989. Gallaher's first experience of handhelds was with a simple device, the M55, marketed by Unilever Computer Services, since taken over by Electronic Data Systems of the US. Interestingly enough, the group's move into handheld computing was not driven by one of the company's young turks, but by Mr Tony Goodburn, a sales engineer of mature years who has since retired.

Today it is using a more sophisticated machine developed by Victor Technologies part of the Tandy Group based in the US. Victor was a pioneer in the personal computer business, but lost its way in the 1980s. Under Tandy's ownership it is recovering its bounce.

It is, for example, one of the leaders in portable computer systems in which keyboards are replaced by handwritten input.

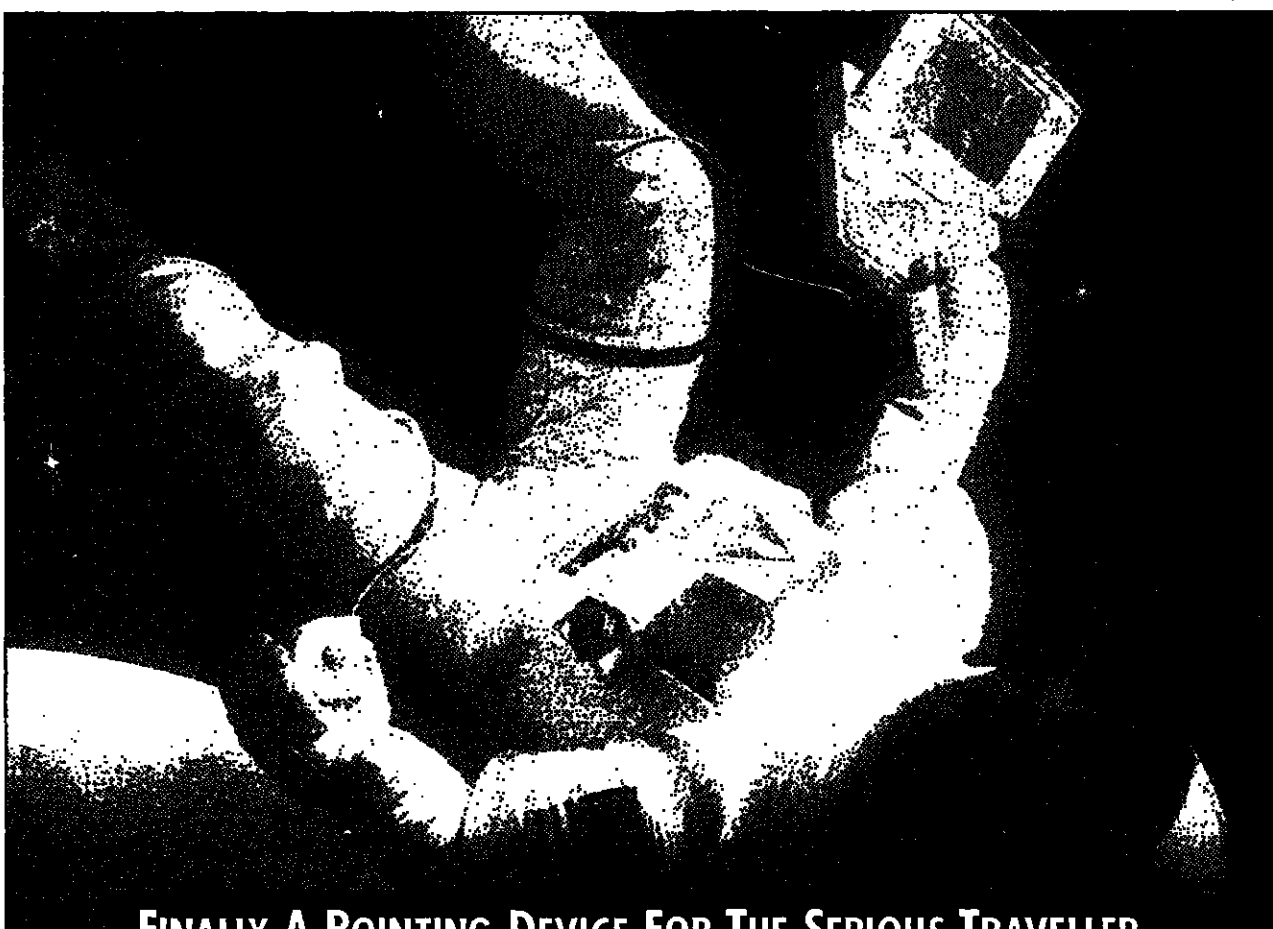
The Victor machines allows sales people on the road to place orders from customers and print invoices as well as receiving messages through electronic mail. Printing the invoice is a big plus, saving hours of paperwork. It also calculates VAT automatically.

At the end of the day, the sales people send the result of their endeavours to the company's main computers at Northolt, Middlesex, over the telephone network. There is no cabling or interfacing to worry about; the computer is laid on a "plinth" - essentially, a telephone terminal equipped to receive information from the computer through an infra-red link. Mr David Adams, sales programme manager, notes the importance of a lack of obvious or complex equipment where salespeople are working from home.

The trial has been a success: Gallaher executives say it would not have been possible to combine the two sales forces in one without the computers.

The reason, Mr Adams says, is the amount of paperwork necessary for each kind of account. Different order and invoice are used for direct and indirect sales. Both are stored in the computer and called up at the press of a key. Without electronic help, the salesperson would risk drowning in paper.

Continued on facing page



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FINANCIAL TIMES

PORTABLE COMPUTERS 7

HANDHELD COMPUTERS

More power for the palmtop

LITTLE MORE than a decade ago, the only "portable" computers were the size, shape and weight of a sewing machine, and IBM PCs, with 64K of memory, were just beginning to grace office desktops. Since then, technology has enabled computer manufacturers to pack more and more power and memory into ever-smaller boxes and make the computer-on-a-chip all but a reality.

Laptops replaced the early transportable computers, and then came the clam-shell notebook computer. The latest notebook portables boast colour screens, massive hard disks and the 80486 processors, giving them the power of the fastest desktops, all in a package smaller and lighter than an average telephone directory.

For some users, however, it seems that even the notebook computer is too big to carry around. Enter the palmtop, or handheld computer, some of which are little bigger than a large sardine can and weigh less than half a bag of sugar. A growing number of varieties of palmtop computers are now available. Some offer little more than the features of an electronic organiser, while others cater for specialist niche markets such as on-line data collection. But many of these are now beginning to mimic the full-function desktop computer.

According to some analysts, the worldwide market for handheld computers will be worth \$2bn by 1994. At the same time, palmtop machines are already taking a larger share of the portable computer market. Zenith Data Systems has estimated that palmtops' share of the portable market will reach 10 per cent by 1995.

The palmtop computer market was pioneered in the late 1980s by Sharp, the Japanese consumer electronics giant which claims to have invented the electronic organiser, and Psion, the UK-based manufacturer of the successful Psion Organiser.

Some machines, such as the Casio SP5500 and the Sharp IQ range, clearly derive from the early electronic organisers which began to replace the calculator and paper-based personal organisers a few years ago. One, the Kyocera Refalo, actually comes in the form of a ring binder. Typically, these machines are equipped with built-in functions such as calculator, clock, address book, scheduler and notebook usually accessed via a set of dedicated menu keys, that are now near-standard.

More sophisticated machines, like the Sharp IQ



Instant price-checks on a Psion point-of-sale system

8000, use plug-in flash E-Prom cards to expand memory and provide other tailor-made programmes including spreadsheets, translators, and specialised scientific and business calculators - thus, one for the Sharp will calculate the size of radiators needed in a central heating installation.

Although they generally do not run industry standard software, most palmtops can also exchange data with a desktop

computer via software and a hard-wire link or over the telephone line using a modem. Since most of them have small and difficult-to-use keyboards, downloading data from the office machine for use while on the move is a particular attraction.

A second group of machines has begun to appear on the market in the last year or so. These can lay claim to be more like shrunken full-function desktops - although nearly all have some limitations in terms of absolute compatibility. This group includes Sharp's recently unveiled but not yet released PC3000 video cassette-sized palmtop, the Hewlett-Packard 95LX, the Psion PC, the dip Pocket PC, the Psion Series 3 and the Micro-writer Agenda. The first four run MS-Dos or an equivalent from Rom memory chips and can therefore run standard PC

software - but with some limitations due to Ram memory size and the physical limitations of keyboard and screen. Though most of the new batch of machines resembles each other, all have some special features. The British-built Psion Series 3, the successor to Psion Organiser, uses a PC-style processor but does not run MS-Dos. Instead, it can be programmed in a basic-like language that Psion calls OPL. Its powerful built-in applications, which include spreadsheet compatible with Lotus 123 and a word processor compatible with Microsoft's Word, can share data with programmes on a PC and files are saved to its two Flash E-Prom memory card slots in MS-Dos format.

The Agenda is distinctive for several reasons, including its innovative rapid entry

microwriting language - substituting just five keys for the usual 26 needed to produce the full range of letters, and its screen which unlike all the others is not in a hinged lid. As for the Sharp 8000 and the Pocket PC, their liquid crystal screens, while still not of VGA standard, are able to display a full 80 columns by 25 lines.

However none of the screens is backlit, which saves battery power, a precious commodity. In general, the new palmtops manage to run for between 40 and 120 hours on small AA batteries or Lithium packs aided by a high level of integration, low power consumption chips and advanced power management techniques.

With the exception of the Agenda, all come with some what cramped Qwerty key-

boards, but of strikingly different qualities and are generally more appropriate for short memos than for producing large documents. All provide built-in functions such as address books, calculators, diaries and notepads or slimmed down wordprocessors, often under a dedicated menu key, while some boast additional features including tone telephone dialers, communications programmes, databases and spreadsheets.

The Pocket PC, with its single expansion card slot, is equivalent to the Atari Portfolio and can run all the Portfolio's software cards. With eyes clearly on the individual business user several offer Lotus 123-compatible spreadsheets and the HP 95LX comes bundled with a version of Lotus 123 itself. Most either produce files which are compatible with desktop applications or will convert files into formats that can be used by other machines. Removable memory cards are also a common feature, together with software and cables allow them to be hooked up to telems, printers and desktop PCs.

Most of the machines still use proprietary slot-in cards for memory and additional software applications but a de facto palmtop PC standard is emerging. The Hewlett-Packard, Psion and Sharp palmtops all come with new Flash Ram memory card slots conforming to the PC Memory Card Interface Association and an optional PCMCIA card adapter is available for the Pocket PC. These lightweight cards, the size of a small stack of credit cards, can be read-only or read-write and hold up to 2Mb of data at present although larger capacities, up to 64Mb, are on the drawing board.

PCMCIA cards are expensive at around \$350 for a 1Mb card, but prices should begin to drop as more manufacturers adopt the standard. An external card drive can be bought for about \$165 and plugs into the parallel interface, allowing data to be exchanged with a desktop - or another palmtop.

A third specialist group of handheld computers - some derived from machines mentioned above - is designed primarily as data collection devices or for use in industrial or non-office environments. Psion, Tandy's Victor Technologies/Grid subsidiary and Husky Computers among others manufacture handheld machines used as portable input/output devices mainly by meter readers, market researchers or for stocktaking, using a bar code reader or other input device.

The market for this type of

machine is growing rapidly. Prudential Insurance has just placed what it claims is the world's largest order for handheld computers, spending an estimated £7m for 7,600 Husky Hunters to improve the reliability of data capture and reduce the time between collecting data and sending it back to a local or central office. The computers will replace the old paper-based collection book carried by the insurers' door-to-door salesmen.

Overall, the palmtop computer market is becoming increasingly competitive, but it is also still a young and diverse product market with few established standards. It may therefore be some time before the market becomes a cut-throat commodity-type market like those for larger computers.

Inevitably, the human body imposes limitations on the workable size of screen and keyboard which designers have so far failed to overcome. As a result, palmtop computers, even the latest generation, are designed around a series of compromises.

Some analysts predict that notepad computers will grab 20 per cent of the portable market by the mid-1990s - overtaking palmtops themselves. Communication between computers, including palmtops, is also likely to become simpler and more automated. Several manufacturers, including NEC and Psion, have already developed radio communication versions of their portables and Hewlett-Packard's palmtop includes an infra-red "window" in its casing which allows it to communicate without wires with other HP machines.

The prospect of combining the palmtop with a cellular telephone or other wireless transmitter raises the possibility of computer-to-computer communications anywhere without any cables.

The latest palmtops are already a far cry from their earlier portable cousins, but there is still some way to go before the dream of real pocket-sized computing power becomes a reality. What is certain is that this, too, will come sooner rather than later.

Paul Taylor

PEN-BASED SYSTEMS

Optimistic forecasts

"The pen is mightier than the sword," according to famous saying by Baron Lytton (1803-1873). The pen may also prove a more powerful tool than the computer keyboard if pen-based computer systems turn out to be as popular as many manufacturers and industry analysts now predict.

Pen computers come in several guises, although most are electronic tablets which resemble a Victorian school slate, complete with a stylus or "pen". The pen is used to write free text, fill in boxes or indicate sections of diagram on the computer screen.

Such systems generate excitement because they enable the most keyboard-literate, from the chief executive to the humblest blue-collar worker, to exploit computer technology.

Pen computers are being developed in both the US and Europe. One of the latest, from Momenta International of California, is a hybrid system, incorporating a keyboard as well as a pen. This, says Mr Mike Daly, former managing director of Grid Computers in the UK, makes it ideal for applications such as business planning or for editing and correcting reports.

Other types of pen PCs fall into three categories. Machines in the first category are intended for vertical applications, where customised software enables engineers, nurses or surveyors, for example, to gather data.

One application using the Gridpad machine, from Victor Technologies, part of the Tandy group, is for crash assessors from motor insurance companies. It uses the Gridpad to calculate the cost of repairs by displaying expanded vehicle diagrams on the screen.

By touching individual components on the screen with the pen, the machine automatically records the parts that need replacing. This data can then be sent over a telephone line directly to a mainframe computer where the price of the replacement part and the labour costs can be calculated.

A similar package, to enable surveyors or architects to collect data on the site of a refurbishment project, is under development for the NCR pen system, by SurvSoft, of Weston-Super-Mare. By indicating the appropriate component from the diagrammatic selection of walls, floors and ceilings that are stored on the handheld machine, the surveyor can build up a picture of the surroundings.

The appropriate measurements are inserted by calling up a calculator pad on the screen and then indicating the appropriate figures. The plan can then be fed back into the computer system in the office.

More sophisticated than these are machines which actually recognise handwriting. Although most of today's systems can recognise letters or numbers, and can store signatures, the ability to use a pen PC like the traditional notebook and pen is still some way off. Mr Chris Fell, an analyst at information technology research group Datquest, predicts it will be 1994 before such systems become reliable enough to find widespread acceptance.

The third category comprise the simplest systems, which are intended for applications where a paper copy is required but where a printer would be

simple form to enable the warden or salesperson to take down simple details, these electronic clipboards are considerably less expensive than their more sophisticated counterparts, and therefore are finding more widespread applications with blue-collar workers.

Mr Bill Clough, president of Microslate, the Montreal-based pen computer maker, points out that in North America the white-collar market is 95 per cent saturated with computer technology while the blue-collar workforce is only 11 per cent saturated.

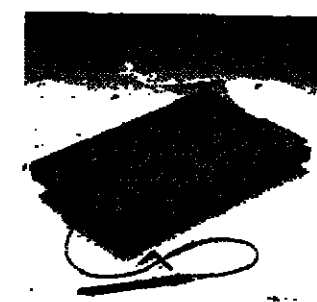
In Europe the situation is different. Mr Alasdair Macgregor, UK marketing manager for workstation systems at NCR, says that companies such as his are aiming at the white-collar worker because that is where most corporations will get the best return on investment.

One factor which could inhibit the growth of the market is any dispute over the operating system used in pen-based systems. SurvSoft, for example, uses "windows" software, so that pictures, or "icons" appear on the screen. This approach is being promoted by Microsoft with the Pen Windows version of its popular Windows software environment. This will enable users to adapt Windows applications developed for desktop computers for use on pen computers. But many believe its lifespan will be limited.

More promising in the longer-term, believes Mr Fell, is the Penpoint operating system developed by Go, the California start-up company. It has been specifically designed for pen PCs, and is therefore a more appropriate solution. Fell believes a dispute between promoters of the two approaches could well be avoided, with the market moving progressively from the Windows approach to the Go one.

If this proves correct, then pen technology could prove the next revolution in computing.

Della Bradshaw



Pen-PC from Victor Technologies

cumbersome or too expensive. One example of such a machine is the ScriptWriter produced by Peripheral Vision of the US. It can be used for taking down an order, and leaving a hard copy with the person placing the order.

Or it can be used by traffic wardens: as the warden writes down the details of the ticket on the sheet of paper placed on top of the board, the pressure registers the same information - car registration plate, for example - into the computer memory. Once the warden returns to base, the details can be fed into the main computer system.

Because the application requires little more than a

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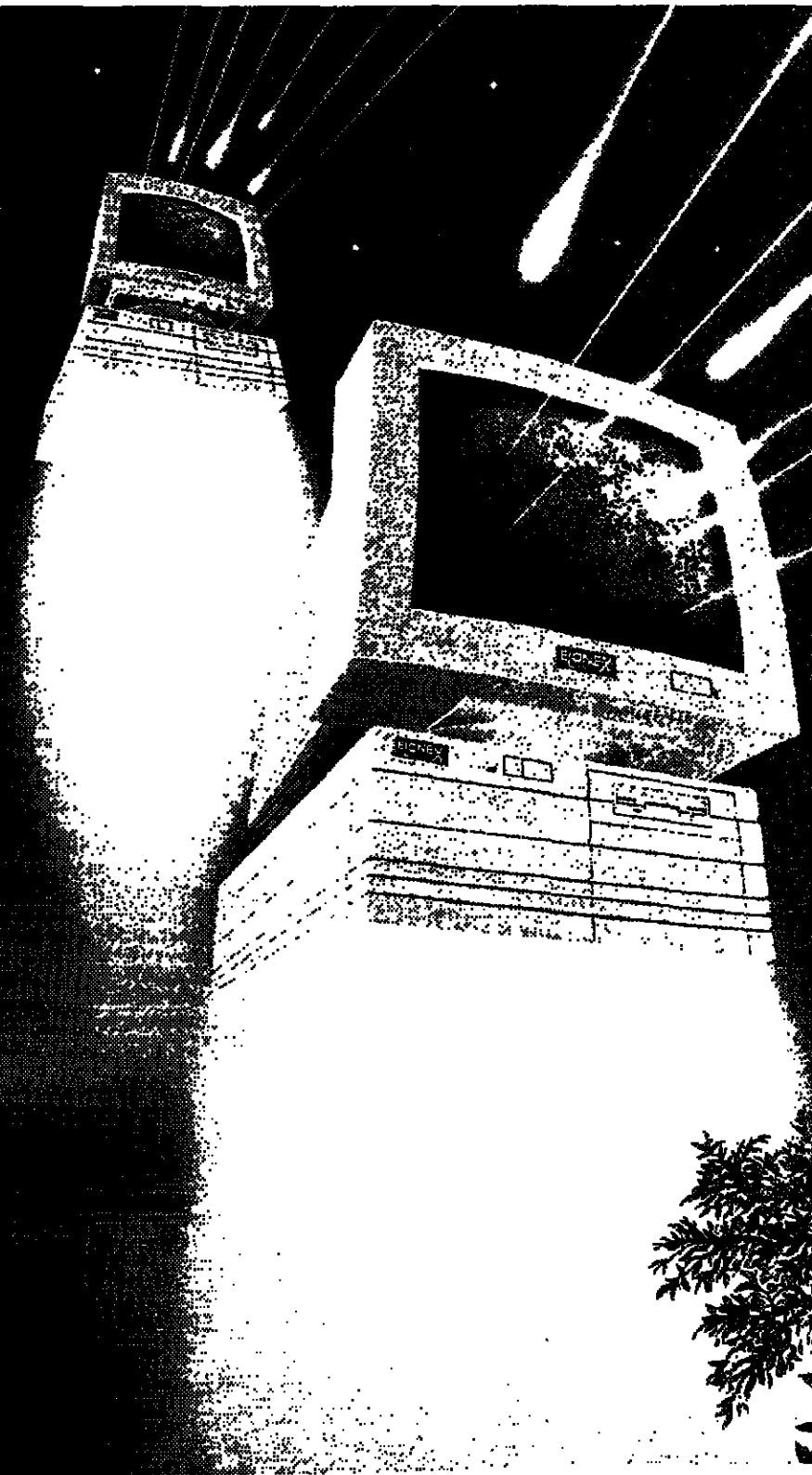
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How portables help sales force automation

Boost for productivity

SALES force automation was largely impractical until the appearance of the laptop computer. Computer-help for field sales people used to be limited to what could be mailed to or from them on disk or by telephone to their home PC, via its modem.

Now software packages abound, claiming to make the nomadic sales person more productive. Some systems are little more than glorified electronic diaries, but others are

genuine marketing tools, cutting down on paperwork and handling all routine computerised elements of a sales person's work, such as:

- Customer requirements analysis and recording.
- Quotation compilation.
- Personal organisation facilities.
- Planning and developing sales prospects.

A closer look at these headings might reveal facilities for recording customer details, rel-

evant products, history of sales (and failures), past visit reports, current sales order management and forwarding action for taking up new business opportunities.

The transfer of information between the sales executive and head office is important. Thus, a package may allow information to be extracted for progress reports and for creating more lengthy reviews requiring pre-composed texts and calculations, in word processing fashion. There should also be an electronic mail link.

The tasks may be interpreted in different ways, but should not be discrete: for example, an entry in one section should update, in spreadsheet fashion, the effects on entries in other areas.

A change of contact name, to take a simple instance, will need updating in the diary, account record and future prospects reminder.

Among the hundreds of packages for sales force automation, a handful are starting to acquire a name.

Among these, Sales Technologies, for instance, is a leader in the pharmaceutical industry. Market Solutions, Prosper Systems and Ensure Sales Technology have well-known, but more general purpose offerings. In the insurance sector, the Business Partner system comes from industry-sponsored Origo Services.

The insurance industry, as with all pioneers of computer applications, had to write its own early software. Many user-companies now combine in-house systems with off-the-shelf automation modules to add value.

Sun Life of Canada, for instance, uses in-house software to gather information on the client, analyse it identifying needs and generate product illustrations. They also have a proprietary SFA system called Portex from Showers and there will soon be an automatic data transfer from one to the other.

Allied Dunbar's famous application of sales force computers has evolved into customer-needs analysis and point-of-sale product calcula-

tions combined into a personal financial planning system. They are now adding enhanced features such as financial health checks and graphical sales tracks to a practice management module covering sales force functions. This last point illustrates the need for pick-and-mix systems design. Sun-ridge Management Centre, at Bromley, Kent, has an accumulation of expertise on sales force automation.

But Monica Seeley, the centre's programme director, adds a warning: "Some purveyors are jumping on the bandwagon. Potential users must closely look at the needs of their sales force and make sure the software they buy really fits those requirements."

For example, are sales people selling low-price items in bulk or high-value items in individual negotiations? Do they sell to wholesalers who know the trade or to end-users who need educating?

"Does each sales person have large or small numbers of customers and how well does he or she have to get to know them? Issues like these need to be set out clearly, because most packages are written with one or another type of salesforce in mind."

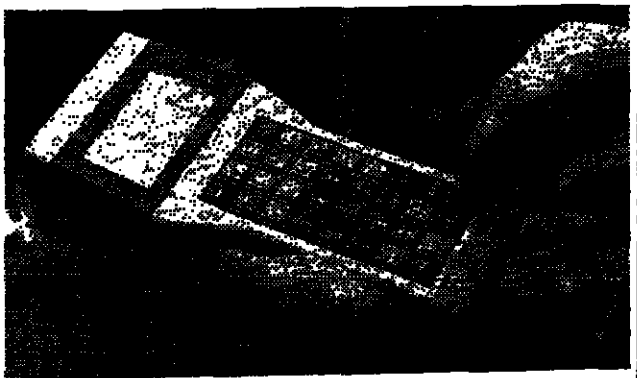
"Indeed, there may be a mix of 'sales types' in the company - regular sales people out on their patch and others on national accounts. It is rare that one system can serve all these people, but where different packages are used they will need 'pipelines' between them."

Another link is needed between the sales team's laptops and the head office sales management system - thence to the company's order, production, delivery and accounting arteries.

Such a link allows a sales person to update head office territory records, send in orders as they are taken, and so on.

The head office, in turn, sends out details of fresh enquiries, price changes, promotional information and other data.

Faster deliveries



Gallagher's sales team uses GRID M1000 handheld computers

Continued from facing page work. The system has now been implemented across the country at a cost of some £500,000. That represents a large chunk of Gallagher's data processing budget. Mr Adams said it was justified to senior management on grounds of cost-cutting. Delivering order data automatically over the telephone meant that fewer staff were needed to handle mail orders.

There were, inevitably, teething problems with the system and not always obvious ones. The units are battery powered and at one stage Gallagher found it was going through batteries at a remarkable rate. It discovered that unbeknown to Victor, the composition of the springs which retain the battery had been changed by a supplier. The result was a reaction which

drained the battery. Every set of springs had to be changed to solve the problem.

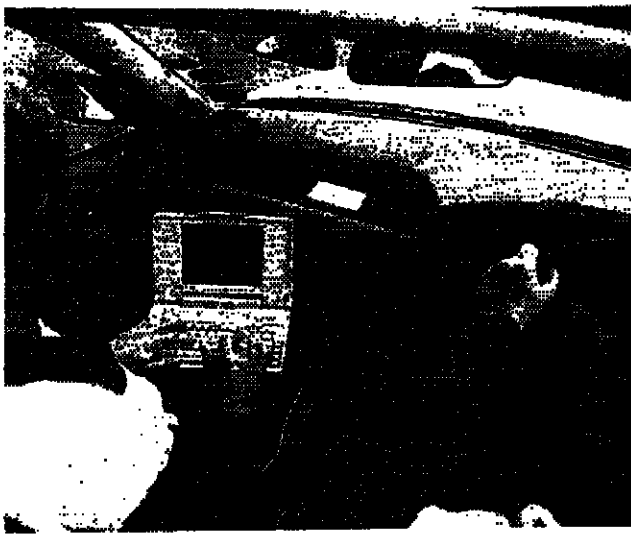
Then there was the tiny printer which sits on top of the computer to issue invoices operates by leaving an image on thermal paper. The sales team was issued with plastic wallets to file the copies. Again, a chemical reaction paper meant that in weeks the invoices faded. Leather replacements for the wallets solved the problem.

The company is measuring the success of the trial by improvements in service to its customers. It believes it has shaved 24 hours off the average delivery time. In today's fiercely competitive markets, that is an advantage well worth having.

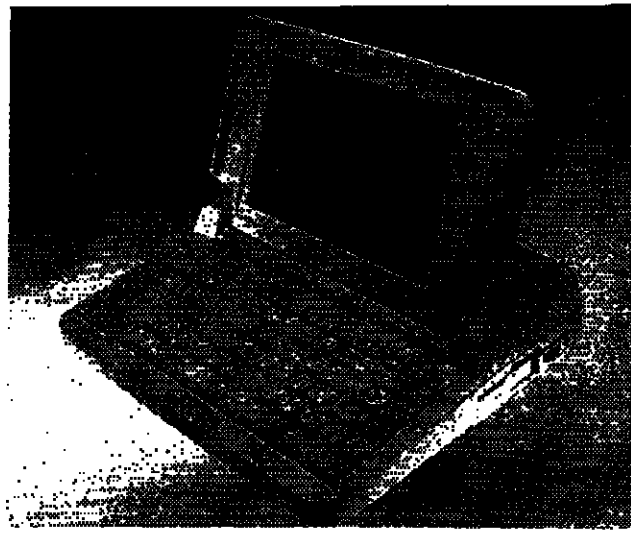
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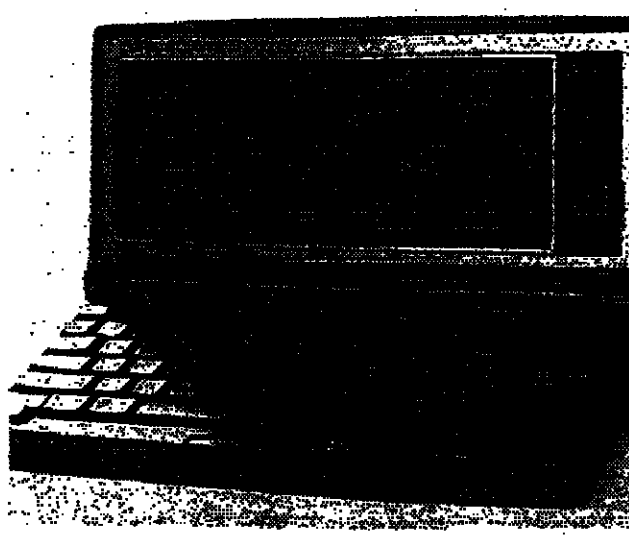
PORTABLE COMPUTERS 8



Vortec Notebook: used by the Metropolitan Police



The Tandy 1100 FD portable computer.



Sharp Electronic's PC-3000 palmtop computer.



New from AEG Olympia: the Lapbook SX

From palmtops, notebooks and lapbooks...

For the buyer, there is a daunting array of portable computers on offer. Here, and on the following two pages, JULIE HARNETT looks at a selection of machines in each category, from top-of-the-range to budget models.

WITH a flood of new portable computers coming on to the market, the competition will become even hotter during 1992 as the players fight for market share. However, while you - as buyer - win because prices become keener by the day, you could lose if you buy the wrong machine.

Continual improvements in technology mean the life-cycle of a portable PC today is about nine months at best. You could easily find that, by the time you have signed on the dotted line for the machine of your choice, it has already been

superseded by a more powerful, lower priced version. What is the answer if increased performance is anticipated? Accept the fact that you might want to change your portable every year or look for a machine that can be upgraded, i.e. the working memory can be expanded from the initial 1Mb or 2Mb to 8-10Mb or more; the display screen can be changed from, say, a mono to a colour; and there are expansion facilities for adding additional storage facilities, modems, printers and so on.

Unless you are a first-time

user wanting to cut your teeth on a basic portable PC or simply need a portable for occasional personal use at home or away, beware being tempted to buy a unit simply because it is dirt cheap. It will be a total waste of money if it is based on old technology that cannot support the applications you want to run.

There are, quite literally, hundreds of portable machines to choose from ranging in price from £199 for an A5 size palmtop PC to £10,000 for a power-breaker transportable based on the 80486 processor.

There are many variations in

between and, with increased competition from Korea and Taiwan, there will be many hundreds of models to choose from over the coming months. A survey commissioned by portable computer suppliers AST found that 75 per cent of users make their own decision on which portable PC to buy. Even among corporate buyers, 53 per cent is down to personal preference.

So what do they look for? The most important criteria in the selection process were screen quality, keyboard, hard disk drive, processor power and RAM.

Of secondary importance were weight/portability, battery life, design, price, manufacturer's reputation and service support; although the last two were higher up the scale for corporate purchases. The choice of machine will depend, essentially however, on what you want to do with it.

To give an example, a palmtop will be more than adequate if you need a pocketable unit that can handle spreadsheets, diary and address book organisation, basic text processing, data capture (e.g. stock control) and database enquiries. If you are a graphics

designer or engineer wanting to run sophisticated applications such as desktop publishing and computer-aided design software, you will need a power portable boasting a fast processing speed, large RAM (working memory), high resolution colour screen and high capacity hard disk storage, with each graphics image taking up the space of four pages of text on average.

The most popular applications, according to AST, are based on Windows 3.0. Wise buyers will look carefully at software licences. Until recently, you had to buy a separate software package for your portable PC or deinstall your desktop version to avoid falling foul of the copyright laws.

WordPerfect took a lead by allowing users to make a copy of WordPerfect for Windows, providing only one version of the software is being run at any one time.

A point to bear in mind is that Windows requires at least 2Mb of RAM, *pro facto* you are going to need a more powerful portable, perhaps one with a colour screen, the quality depending on whether it is simply for personal viewing, for business presentations or for detailed graphic design applications. (see page four for article on software)

Another point to bear in mind is that there are a number of different display technologies, some of which are very different to the best of times. (see page four for article on screen technology) is the amount of detail you wish to see.

For the latest in mono displays, look for the VGA (video graphics adapter) standard, with 32 grey-scale levels. Weight will be important if you intend to carry your portable around in a briefcase for any length of time.

A notebook PC may only weigh 5lbs, but add an extra rechargeable battery pack, mains adapter and external floppy disk drive and the weight could well match that of a power portable.

Incidentally, if you intend to use your portable overseas, watch out for mains power adapters that plug straight into the socket.

When plugged into an intermediate international power converter, they tend to slip out because of the weight. (For more details about battery power, see page four).

Other points to bear in mind include compatibility with your desktop PC, particularly if you want the convenience of being able to use the same disks; expandability, with extra sockets important if you want to add a modem, printer, and fax card; data integrity, with solid state disks being less vulnerable to damage than rotating magnetic media; and storage capacity, particularly if you are an information hoarder who hates to delete files.

Palmtops - personal organiser or PC companion

Palmtop PCs are small and light enough to carry in an overcoat pocket; they use little power to provide several days of red-light use per battery charge; can exchange files with a desktop PC; and are affordable, being priced between £199 to just over £1,000.

For those on a budget who do not need to run standard PC applications but do need a personal organiser, diary scheduler, calculator, basic text editor and address book, units to look at include the Sharp IQ and the Microwriter Agenda, which offer PC communications, i.e. provide you with the ability to upload/download information in ASCII text format, as opposed to fully formatted documents.

If you need MS DOS compatibility, i.e. want to run standard PC applications, in a machine no bigger than a video cassette, the palmtops to consider include the Poqet PC and the various units designed with the help of DIP, the British pocket computer experts.

They include the DIP Pocket PC, Atari Portfolio, Hewlett Packard HX 95LX, Sharp PC-3000 and Telematica Leo.

DIP is convinced that the best seller in 1992 will be the Sharp PC-3000. Priced at £749 plus Vat, it features 2MB of system memory; 77-key QWERTY keyboard; 640 x 300 resolution black and white LCD screen;

inbuilt software which includes diary, phone book, calculator and text editor; and optional external 3.5in floppy disk.

Most interesting of all, it is PCMCIA (Personal Computer Memory Card International Association) compatible, which means it can take solid state memory cards which offer low power consumption, greater storage capacity and increased reliability. (see page 6).

Backed by such leading industry players as Intel, IBM, Microsoft, Lotus and WordPerfect, PCMCIA is set to become the pocket computer standard, enabling users to plug in and go with all the popular PC-compatible software.

The Poqet PC (1999) also takes PCMCIA-compatible slot-in memory and application cards, provides 100 hours of use on standard AA-size alkaline batteries and features a full 80-character by 25 line display. Touch typists will particularly like the newly designed 77-keyboard with its more positive action and separation of cursor keys from the shift key.

PC software available includes Lotus 1-2-3, Lotus Agenda and Lotus Works, WordPerfect 5.1.

Palmtops - for technophobes or action men

Though to some aficionados, the Psion MC range is still one of the more innovative around, its potential hampered only by the lack of long promised peripherals, Psion believes that its computer saviour will be the handheld Series 2, which has won a number of awards since its launch last Autumn, including the Best International Product award at Comdex/Fall exhibition in Las Vegas.

Priced from £199.95 inclusive of Vat, it is MS DOS compatible and supplied with built-in applications software which includes a full featured word processor and database.

Using the same SSDs (solid state disks) as the MC range, it features a very clear screen, 16-bit processing power, multi-tasking operating system and graphical user interface. Thus, even technophobes should not suffer a long learning curve.

If you are looking for a handheld computer that will stand up to a hard life, the Husky 16 is worth considering. It comes in a tough, knock and water-resistant sealed case, making it ideal for service engineers, local government data collection, quality control, surveying, time recording and warehousing as well as applications in public utilities and the armed forces.

The most recent addition to the Husky ruggedised range of portables is the FS2 which features a backlit LCD screen, weighs in at 26 oz and provides over 30 hours of battery run time. A 512KB budget model is priced at £1,249, a 4Mb version £2,649.

Notebooks - state-of-the-art or budget priced?

If you are constantly on the move and work mainly from vehicles or hotel rooms, a notebook is an ideal solution.

Small and light enough to be carried in a briefcase, able to run off a battery, car cigarette lighter system or mains power, there are budget priced models or power versions capable of handling most applications.

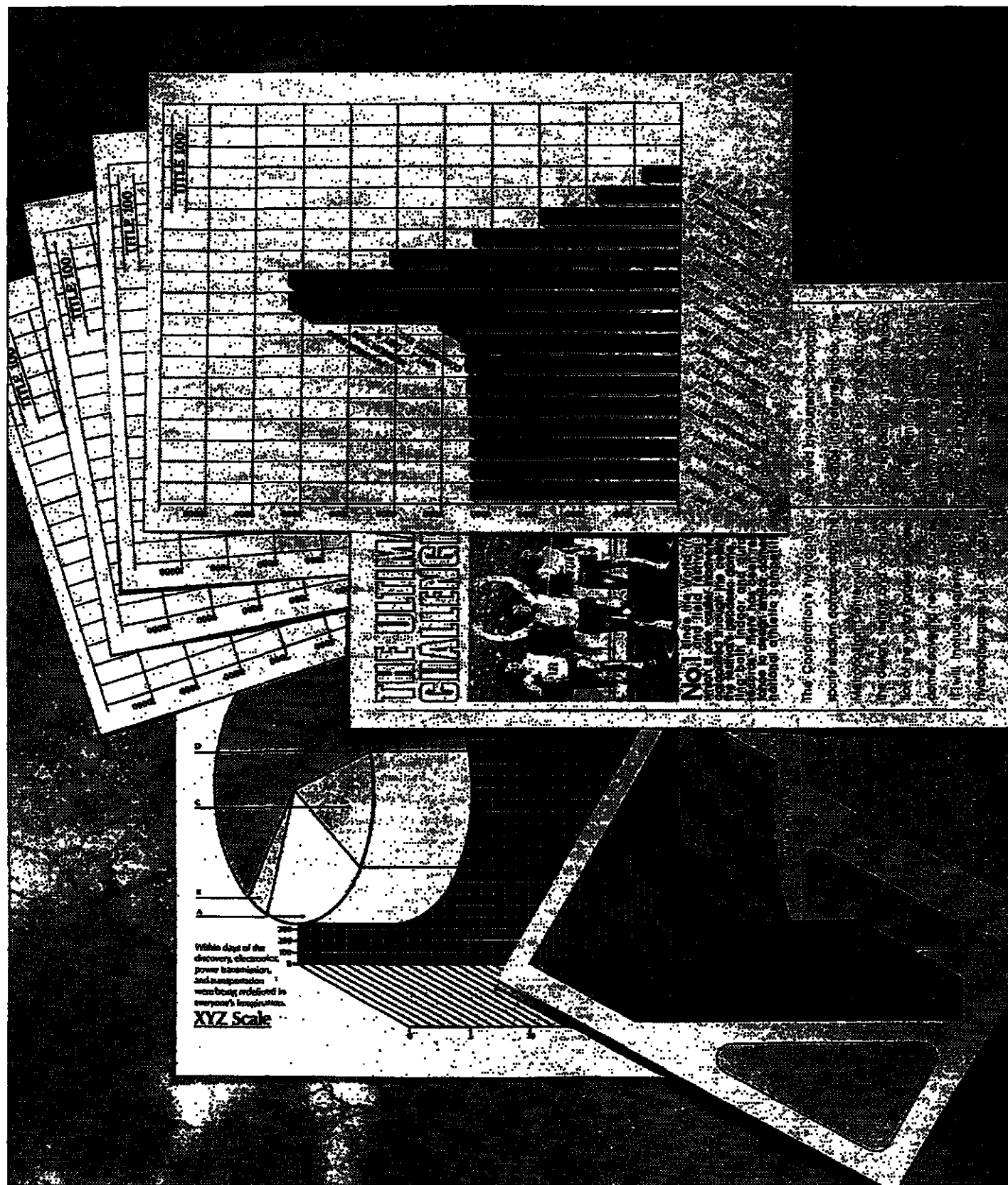
A drawback may be lack of expansion slots, which means you get only what you see, with no upgrade path. Notebooks like the TI TravelMate 2000 and Sharp PC-6220 which do not have an integral floppy disk drive will be a bonus for large organisations not only because cost will be lower but data security is enhanced since users will not be able to insert disks from unauthorised sources that may contain viruses.

Epitomising notebook PCs with integral 1.44Mb 3.5in floppy disk drive is the new Bondwell B380SX which weighs in at 8.4 lbs; uses a 25MHz processor to provide processing speed up to 90 per cent faster than a conventional 16MHz machine; and features a rechargeable NiCad battery and advanced power management system to give up to 4 hours of red-light use.

Priced from £2,499 list, it also has 2Mb RAM as standard.

Continued on facing page

The best laser printers in the world.



You'll notice that we haven't added a modest "probably". Because if you want the best in laser printers, the Hewlett-Packard LaserJet is undoubtedly it.

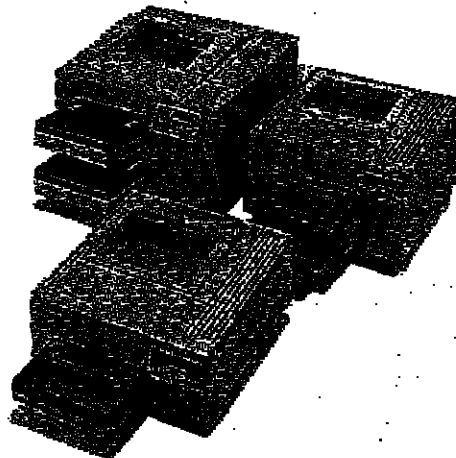
Today, over 5 million HP LaserJet printers are sharpening company images around the world, producing stunning results time after time.

What keeps these remarkable machines way ahead of the competition is clever new ideas. Lots of them. Like Resolution Enhancement Technology. Developed by Hewlett-Packard, it ensures lines so sharp, curves so smooth and blacks so black, that documents look as though they've been typeset.

HP LaserJets also use HP's PCL5 advanced printer language. This latest generation language allows new, fast vector graphics and a range of scalable fonts that enable you to turn even the most mundane document

into a thing of beauty. Not only is the HP LaserJet family a very gifted one, it's a complete one to meet your every need.

The latest addition is the HP LaserJet IIP Plus. Together with the HP LaserJet IIP, it puts



LaserJet print quality where you want it - on your desk. Then there's the industry standard HP LaserJet III and its big brother

the IIP with its superb paper handling ability. For quality allied to the speed modern business demands - an outstanding 16 pages a minute - HP LaserJet IIPs have no rival. Any of them will make your work look brilliant.

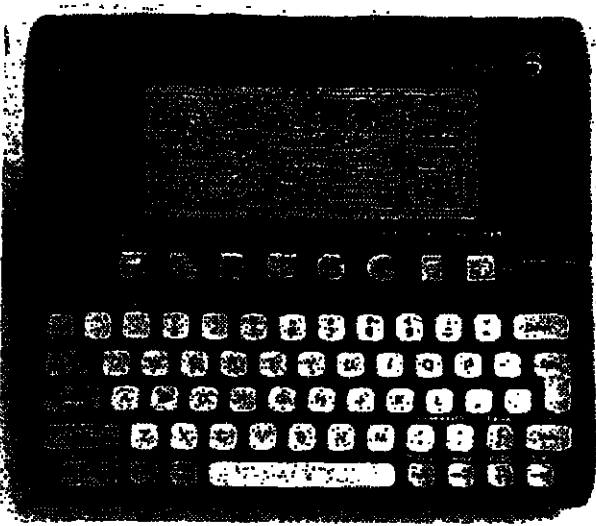
HP LaserJet printers. The best. And there's no "probably" about it.



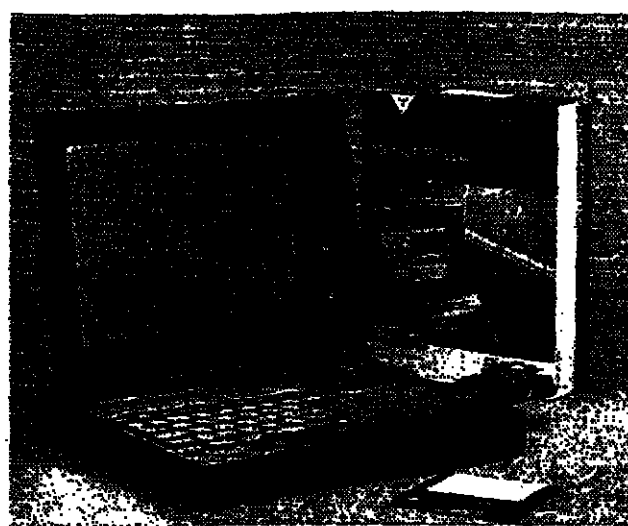
HEWLETT
PACKARD

THE POSSIBILITY MADE REALITY.

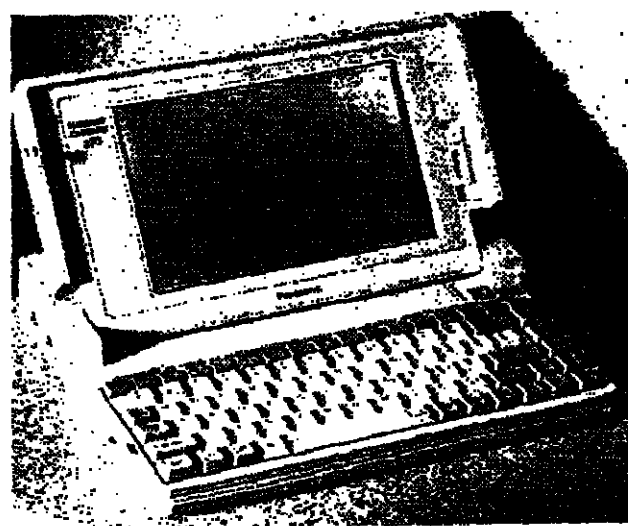
PORTABLE COMPUTERS 9



Pocket-sized Palm Series 3



T1's TravelMate 3000 Win/3X



Panasonic's Notebook CF-370



Toshiba's T8400SX with 120Mb hard disk

... to notepads, pen-based systems and laptops

Continued from previous page

30Mb capacity hard disk, 1.44Mb 3.5ins floppy disk drive, triple super-twist VGA screen and a PC alarm to guard against both physical removal and unauthorised access to data.

If you want to run your portable all day on battery power, then the state of the art is the Zenith MasterPORT 386SL notebook (see page one). It uses the Intel 386SL processor which has been designed specifically for portable PCs to prevent mid-day battery failure.

The machine gives up to eight hours' use from one battery charge and, to conserve power further, features the Premier Management Systems with Rest Resume mode, which allows you to suspend work and saves it for up to 30 days.

Priced at £2,995, it is one of the most powerful PCs available at low prices from the mail order company Action Computer Supplies.

The new Compaq LTR Lite/25 and Lite/20 866SL-based

notebooks are based on the same processor with the most notable features being hardware and software security, enhanced battery-life control, improved keyboard layout and stand-by and hibernation modes.

Action prices are £1,899 and £2,149 respectively. Also 386SL-based, the new Toshiba T3800SL notebook features a 64Kb cache memory which is claimed to make the 25 MHz processor operate over 50 per cent faster than Intel's 20MHz 386SX chip; six hours of battery life; and PC-to-mainframe communications capability.

For those on a budget, keep your eyes peeled for the numerous special deals advertised in the national and computer press. As an example of the drop in prices, the Tandy 1100FD notebook is now some £300 lower at around £425. It may only have a single 720K floppy disk drive, which could be inconvenient if you use an AT-compatible desktop PC but, on the plus side, it runs for 4.5 hours on a rechargeable bat-

tery, is supplied with DOS and applications software which includes a text processor, has a full-size 84-key keyboard, parallel and serial interfaces, modem port and optional 1Mb expanded memory card.

Notebooks now priced around the £800 mark that do incorporate the higher capacity 1.44Mb floppy drive include the Panasonic CF-170. With 640K memory, 30Mb hard disk, 9ins easy-viewing backlit super-twist LCD screen and parallel/serial interfaces, it offers four hours of battery life.

But if you need more power at your elbow, expect to pay £2,251 for the 386SX-based Panasonic CF-370. Another example of lowering prices in the power end of the Notebook market is the 20MHz 386SX-based TravelMate 3000 from Texas Instruments which was priced at £2,385 when launched a year ago. Now priced at £1,795, it is A4 size, no more than 46mm thick and weighs in at 2.5kg, which includes a 20Mb hard disk, integral 1.44Mb 3.5ins floppy disk, 2Mb memory

expandable to 6Mb, 10ins side-lit super-twist LCD display with 32 grey levels, full function well-designed keyboard and LapLink file transfer software.

Notepad computers and pen-based PCs

A variation on the notebook in terms of size and, indeed, processing power, the notepad is different in that it has no keyboard; you write on it with a cordless pen. There are a number of systems poised to enter the market, held back mainly by the lack of software - although over 250 software developers are doing their best.

Ideal for collecting data in the field, typical applications include retail stocktaking, surveying and data logging at industrial sites. The first pen-based PC was launched by GRID Computer Systems, now part of Victor Technologies, which supplies a broad range of portable PCs, see page seven. The GRIDPad pen-based unit incorporates a blue reflective

display which makes it ideal for use by anyone who works at night or in adverse lighting conditions, e.g. truck drivers, repair crews and the police. Customers include Commercial Union, Equity & Law, Ford, Land Rover, the Armed Forces and Audatex, the vehicle damage assessment company.

The latest version is the GRIDPad/HD which incorporates a hard disk drive and is priced at £2,549. The new GRIDPad/RC is priced at £2,049 and uses PCMCIA-compatible static RAM cards. The most recent package to be launched is PenForms which enables any user to design custom screen layouts for any kind of electronic form-filling in the field.

The other main contender in this market is NCR. Said to be the first to understand every-day handwriting, the pen-based NCR 3125 has the potential, says the company, to have as dramatic an effect on working life as the introduction of the photocopier or personal computer.

Based on the Intel 80386SL processor and priced at £2,995, it is able to recognise and record upper case, lower case and annotations and is designed to provide a cost-effective solution for users who find a keyboard an impediment to data input or who are struggling with time-consuming paper-bound procedures.

Laptops - for finance and sales

IBM is targeting the financial services sector with its PS/

2 L40SX laptop which provides full support for client service and sales management. Priced at around £2,800, it is based on the 20 MHz 80386 microprocessor for fast execution of advanced business programs, including those designed for IBM OS/2 and Microsoft Windows. It is supplied with a 60Mb hard drive, super slim 1.44Mb, 3.5ins floppy drive. Plus-points include an 85-key keyboard with full-sized keys; 10ins super-twist nematic LCD display with 32 levels of greyscale; and an optional auto-switching AC adapter which adjusts for local power conditions in any country.

Expansion facilities allow instant connection of external VGA, serial, parallel and keyboard pointing devices as well as the IBM desktop expansion unit. It uses an advanced NiCad battery with battery backup and advanced power management systems, with optional quick charger and car adapter.

You may expect to see a whole series of portable PCs from IBM in 1992. At the budget end of the power laptops is the Laptop SX from AEG Olympia which is slightly larger than an A4 notebook size PC and less than half the weight of a laptop (3.6 kgs).

Based on the 50MHz processor running at 20MHz, it incorporates a fast access 40Mb hard disk drive, 1.44Mb 3.5ins floppy drive and 1Mb of memory which is expandable to 5Mb. It also has a low power page white backlit LCD display and uses batteries giving 3 hours of use. List price is £1,999, which

includes free on-line telephone support.

Colour - for presentations and computer-aided design

An example of state-of-the-art in portables offering business presentation-quality colour screens is the Sharp PC-8501 which is based on active-matrix TFT (thin film transistor) backlit LCD technology which supports 256 displayed colours simultaneously out of a total palette of 262,144 colours and offers a high contrast and definition regardless of viewing angle.

It has a 2Mb memory (ideal for Windows applications) and features a 100MB hard disk drive, a capacity designed to support disk space hungry graphics applications.

The drawbacks? It is mains-powered only and the list price is £3,995, down from the launch price of £5,000; although available through Action Computer Supplies at £4,195.

Those on a budget can still get access to Sharp's high performance colour display capability, but on the new ACL-386SX 20MHz laptop from Amstrad, the UK market leader in terms of portable PC sales. Expected to become the company's best seller for 1992, the list price is £3,999 plus Vat and it incorporates 4Mb of main memory and a 120Mb removable fast access hard drive for high capacity storage and data security.

A bonus is that it runs off

removable rechargeable battery pack with built-in charger and internal auto-switching mains power supply and utilises a 20MHz microprocessor.

Dual purpose - from portable to desktop

Anyone having to work to tight business budget, has limited desk space available or wants the convenience of a two-in-one computer, then a dual-purpose portable-cum-desktop unit is really worth considering.

Typifying the genre is the Walkstation range of notebooks and laptops, designed, developed and manufactured in Germany by Triumph-Adler, part of the Olivetti Group. Innovations include zero-pressure connection to a desktop docking station and docking printer; a detachable clip-on mono screen which can be replaced with a colour display at a later date - making it virtually "future-proof." It also has an integral mouse and, for the foreign traveller, an intelligent power unit that can work across many voltages and frequencies and the ability to interface to a range of peripherals including CD-ROM drives.

The current promotional price of the top of the range 386/33 60Mb version is priced at £2,999 (normally £4,199).

At the top end of the dual-purpose portables is the 386-based Unisys PowerPort DX1 which comes with 120Mb drive, 3.5ins 1.44Mb floppy

Continued on next page

Increasing interest being shown in insurance, banking, auditing and sales and marketing sectors

Laptop users: senior managers and directors top the list

INTERESTING extremes are emerging in the laptop computer market - one group of end-users seeks high-performance and highly-functional desktop machine substitutions, while another group demands smaller, lighter weight, battery-powered computers for more simple solutions.

Profiles of typical users

But who are main users of portables - particularly laptops?

In the US, there is a higher percentage of users among direct sales teams and mobile workers than in the UK, but this will change with the lively interest being shown in Britain in such sectors as insurance, banking, auditing, sales and marketing, field engineering and management consultancies.

A survey in the UK of computer-users working in companies with more than 500 employees, the majority of users - for the moment - are senior managers or directors, (54 per cent).

One-in-five are professionals and consultants, according to the report by AST Europe, the personal computer manufacturer, and IDG Communications. The percentage of portable computer-users and their job titles were as follows:

- Director, partner: 18 per cent
- Managing director, principal: 11 per cent
- Data processing manager, information technology manager: 11 per cent
- Other managers: 14 per cent
- Professionals, consultants: 19 per cent
- Engineers, scientists: 5 per cent
- Administrators, 8 per cent
- Analysts, officers: 11 per cent

In companies where users have both desktops and portables, they spend an average of 3.82 hours a day on the former and only 2.33 hours a day on the portable. But those without desktop machines use the portable for an average of 3.8 hours a day.

In a survey of use by location, portables were used for 87 per cent of the time in the office, 34 per cent at home and 19 per cent in other people's offices.

More than half of users said they found their portable to be "even more valuable" than they originally expected. One-in-five said they were also using the portable for new applications.



A new portable system helps Barclays Life representatives advise on school fees and other personal finance needs.

While portability was considered the main benefit of the machines (35 per cent), the executive's ability to work outside the office was rated at 10 per cent, with increased efficiency and ability to work more productively rated at eight per cent.

Management research programme

Despite the increasing number of managers who use portable computers, surveys of senior executives attending development courses at a leading management training centre in the UK show that "only a small percentage have any realistic appreciation of information technology in the management process."

Monica Seeley, programme director of the Sundridge Park Management Centre at Bromley, Kent, says that informal skills to operate more effectively, traditionally performed by middle managers, can now be undertaken by the senior manager on his or her laptop, wherever they may be.

The power and ease-of-use of today's portables leads to the radical conclusion that only the computer-aided manager will survive and flourish in the 1990s," says Ms Seeley.

Now the centre has begun a three-year research programme to study the impact of information technology (IT) and how managers should organise their career paths in order to acquire IT and managerial skills to operate more effectively. This research will be conducted jointly with Professor John Beaumont at the School of Management at Bath University.

"Analysis will identify what exactly are the skills and mind-set of managers who use IT effectively in business," adds Ms Seeley. "This will be done by comparing the career paths of 'IT advanced' and 'IT retarded' managers."

"A comparison will also be made of the organisational frameworks which advance and retard the effective use of

Barclays goes portable

In one of the largest portable computer contracts ever placed in the financial services industry, Barclays Life Assurance - part of the Barclays group - has ordered 1,500 Toshiba computers for its entire sales force.

The machines will be used to help build Barclays Life assurance, pensions and investments business. The company made a six-month appraisal of portables computers on field tests from various manufacturers before deciding on the Toshiba.

The machines will run tailor-made "Supercasp" software, developed by Microlex Systems of Derby. The system enables Barclays Life sales staff to make swift and detailed presentations and forecasts for customers. Toshiba's researchers claim that executives "can expect around a 30 per cent improvement in sales performance using the latest in portable sales technology."

Sales force computes on the move

Life Association of Scotland, (LAS), the financial services company, has bought 260 Tandon Notebook portable computers for use by its direct sales force who need lightweight machines while on the move.

The LAS evaluated eight models of notebook computers from various suppliers before selecting the Tandon NB/386sx which runs at 20 MHz and weighs just 6.5lbs (3.1kg). The model has a 10ins VGA monochrome backlit LCD display which allows the user to operate industry-standard software while on the move.

Fast-growing portable printer market

More than 300,000 portable computer printers are likely to be sold in Europe this year,

according to a new survey by Citizen Europe, the computer printer and monitor manufacturers. This figure is likely to rise to 550,000 units a year in 1995.

"At least one-in-four buyers of portable computers also require a printer," says Anthony Odhams, a senior manager at Citizen. "Our forecasts suggest an overall market growth from 1990 to 1995 of nearly 244 per cent."

What is claimed to be one of the world's smallest A4 portable printers has been launched by Citizen, a wholly-owned subsidiary of the Citizen Watch company of Japan.

At 1.17kg, the PN48 Notebook Printer is half the weight of many of its competitors and easily fits into a standard briefcase.

Any machine is a non-impact device with a high resolution print-head to give letter-quality print, comparable with the output of some laser printers. Text and graphics can be combined on one page at print speeds of 33 cps in letter-quality. The UK retail price is £325, plus VAT; (includes NiCad battery).

Among innovations in the sector, the Irish-based company, Ferrotec has plans to produce its new plain paper portable printer (the E200P4) both in France and Ireland. Ferrotec's new printer will be launched at next month's CeBIT '92 exhibition in Hannover.

Among contenders in the portable printer market - they include Toshiba's 201, Canon's stylish Bubble Jet (BJ-10ex), the Kodak Dicomix 150+, the Seikosha dot-matrix LT-20 and the Mannesmann Tally MP-735 - small is beautiful in the race to win market share.

The compact, high-quality Mannesmann printer can emulate both dot-matrix and laser printers.

Toshiba claims to have the smallest and lightest portable printer on the UK market in the ExpressWriter 201, which weighs 1.9lbs (0.85kg) and measures 11.9 by 3.1 by 1.7 ins. It uses 24-dot thermal transfer and prints on thermal or standard office paper, using a ribbon, to produce letter-quality output. The ExpressWriter is priced at £285. It will print continuously for an hour using a detachable battery (weighing 0.53kg), available as an option for £40.

Michael Wiltshire

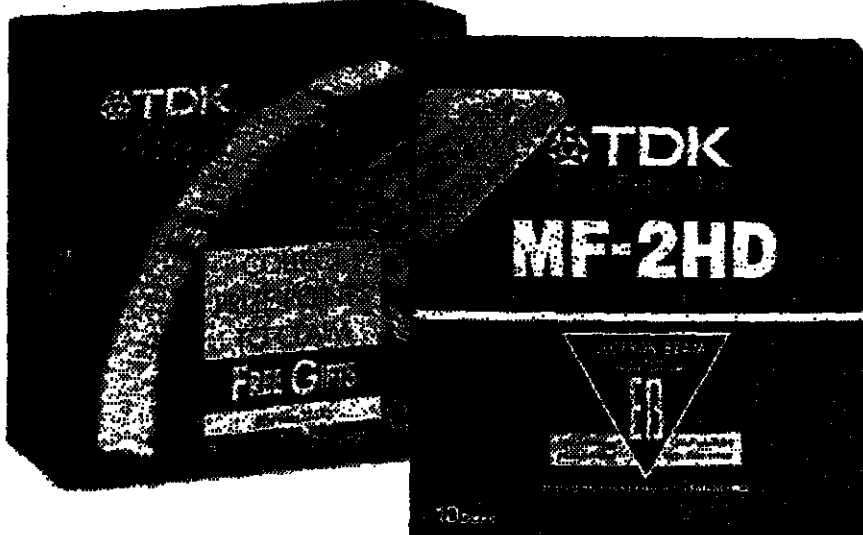
*Opportunities in Portable Computer Markets: Market Intelligence Research Corporation, 45 Rue Vandenhoen, 1150 Brussels, Belgium.
*AST Europe, 2 Goat Wharf, Brentford, Middlesex. TW8 0BA, tel.(081) 565 4850.
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PORTABLE COMPUTERS 10

Notebook computers:
application case study

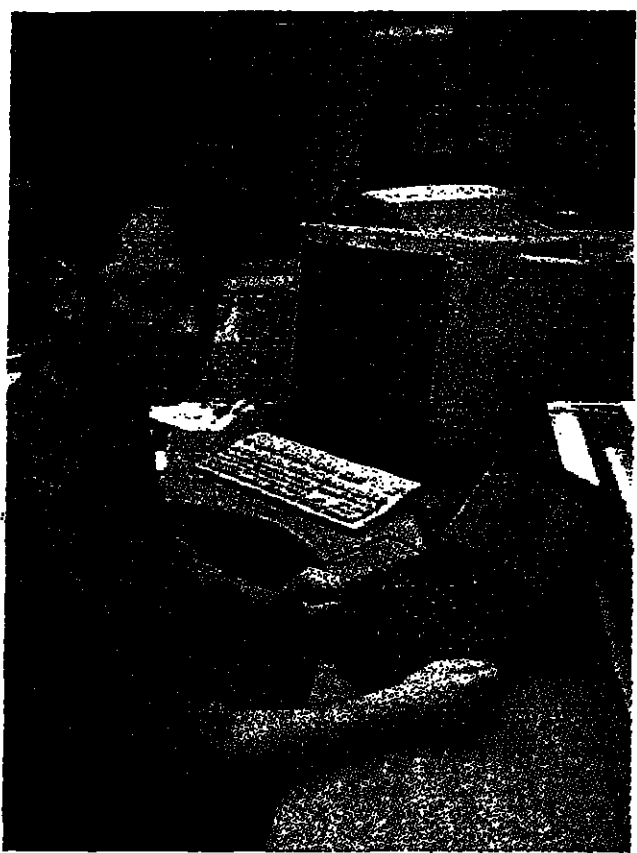
Graphics from the Winter Olympics

LANCE BELL, pictured here, a London graphics journalist with Reuters' international wire service, is using a portable computer at the 1992 Winter Olympics to create on-the-spot illustrations to complement news stories this week from the Alpine mountain slopes of France.

He is using a notebook-sized Apple Macintosh PowerBook 170 with modem, based at a studio in the main press centre at Albertville during the 16 days of the Winter Olympics. He is able to rapidly prepare diagrams and maps not only at Albertville - the flagship town on the games - but also at any of the ten mountain locations where the games are taking place.

Lance Bell's graphics for newspapers and TV programmes in many parts of the world help to illustrate such events as cross country and speed skiing, cross country, freestyle and bobsleigh contests - spread over the 750 square miles of mountainous terrain which is hosting the Olympic programme.

In bad weather, there could be delays of perhaps four hours before graphic details could normally be brought by road and transmitted from the



main press centre. But now, with the powerful notebook computer, Mr Bell can transmit graphics via modem from any of the centres where events are taking place. "The newly-created graphics are transmitted to a Reuters' database in Toronto, Canada," explains Mr Corrie Parsonson, editor of the graphics news service. "Subscribers to the service can then access the graphics and download them to their own Macintosh systems at newspapers, magazines and TV studios around

the world."

Reuters graphics service, which was set up in May 1990, issues between four and six graphics a day, in colour and black and white, to complement news stories, financial articles and other features. "The PowerBook 170 is the highest-performance member of the Macintosh Powerbook notebook-sized computer range. It weighs 5.5 lbs; the system is priced from £2,975.

Michael Wiltshire

Continued from previous page
drive and 4MB RAM expandable to 16MB. Priced at £2,630, it is mains powered only; with the battery operated, less powerful SX1 priced at £2,520. Both are supplied with DOS and Microsoft Windows 3.0, with SCO Unix and Microsoft OS/2 available as options.

Good points include full-sized 85-key keyboard with 12 function keys in standard arrangement and full travel keystroke; and magnesium casing, which is lighter and tougher than plastic cases and, being porous metal, breathes, dissipating heat faster than plastic and eliminating the need for a noisy fan. For graphics: a VGA screen with up to 32 shades of grey, double the norm, which can be unclipped and exchanged for a desktop VGA monitor.

Each system comes with two telephone jacks; optional include a modem/fax board. The active docking station supports industry-standard AT circuits cards enabling it to be linked to major LANs such as Novell and IBM Token-Ring.

Desktop compatibility - from desktop to portable

Graphic designers and other dedicated Apple Macintosh users will want to look no further than the notebook-sized PowerBooks which are based on Motorola's 68030 microprocessor and are priced from £1,375 for the smallest and lightest model 100 which comes with 2MB of memory and 20 MB internal hard drive, to £2,975 for the top-of-the-range

model 170, pictured left. This features a fast 25MHz processing speed, a backlit active-matrix LCD display that provides superb screen performance in all lighting conditions, 4MB of working memory, a 40MB internal hard drive and a 1.4MB IBM-compatible SuperDrive.

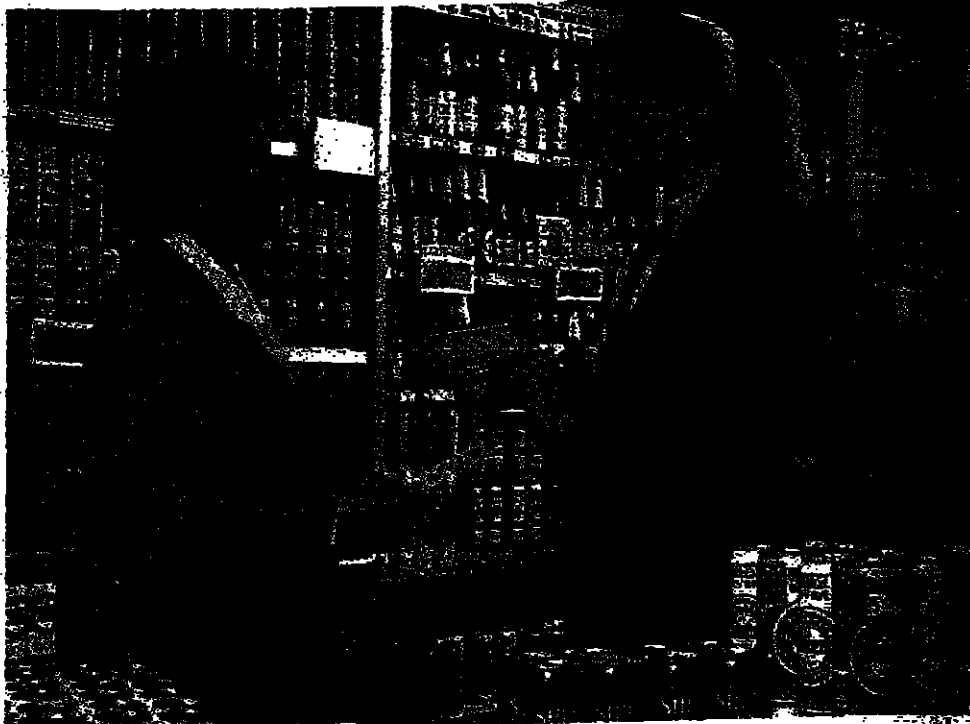
An optional extra is an internal fax/modem card which can be used in any country to transfer data, log-on to remote information systems or for electronic mail.

Upgradeables - start small, grow bigger

The main advantage with Toshiba portable PCs, which range from low-priced notebooks to high performance colour portables, is that there are a number of third party developments which not only upgrade performance but provide additional capabilities.

For example, the Womunder Cradle from Gravatom is an expansion chassis, priced at £299, which takes the Data-voice ISDN PC card enabling Toshiba notebooks to be connected to Integrated Services Digital Network to provide access to remote computers; fast file transfer at 128 kbps; or logging on to local area networks.

Another development is the MicroQuin-NT from Kerridge Network Systems, the first internal modem to provide Toshiba notebooks with reliable data and fax communications over cellular networks. As well as supporting PC-to-PC, PC-to-LAN, PC-to-Unix,



The Husky Hunter: Ideal for sales management and stock control

and PC-to-DEC connectivity, it enables users to access View-data and Telecom Gold.

Power portables - state-of-the-art models for 1992

The most advanced this year in terms of power will be portables based on the Intel 80486 processor, with prices ranging from around £4,500 to over £10,000 and many contenders with products in the wings. Those already in this "go fast"

ter" race are Compaq, IBM, NEC, Toshiba, Zenith.

As examples, the new Toshiba 486-based T6400DX runs at 33MHz and has a gas plasma display (£3,419 from Action) while the T6400SX is a 25MHz TFT colour portable (priced to be advised, but should be under the list price of £5,499).

The Compaq Portable 486C is based on the 486 processor running at 33MHz and supported by 4MB of RAM which is expandable to 32MB. It has either a 120 or 210MB hard disk drive, features an a high quality active matrix TFT LCD display and will be list-priced at around \$7,000.

Support and maintenance

A final point worth mentioning when it comes to buying portable computers is: mobile maintenance. Most machines are sold with 12-month return to (UK) supplier warranty, which will not be much good if you are away from base with a broken computer to complete.

Service warranty length, Sanyo is allowing the way by supplying the brand new range of four notebook PCs with a three-year warranty to cover parts and labour throughout the UK. Countries Mobile Maintenance for UK users of Sanyo notebooks.

means, we are assured, a first-year, free-of-charge, no-quibble guarantee, whereby an engineer will be on-site to replace a faulty machine within eight working hours.

Should the problem turn out to be a major one, the engineer will transfer all your hard disk data - or the hard disk itself - to an identical replacement machine.

In the corporate arena, organisations needing painless support for large field sales forces and mobile executives will welcome the Siemens Nixdorf initiative. This allows advanced notebook PCs to be purchased in packs of ten at a substantial discount. If a machine needs servicing anywhere in Europe, the user simply contacts the nearest service centre where they will be provided with immediate fault diagnosis and a replacement notebook within two hours if needed.

The scheme applies to the PCD-3mx/16, a 16MHz unit with 1Mb memory and 40Mb hard disk which is offered at £2,499 for ten, compared with the single unit price of £2,799; and the PCD-3mx/20 which has a 20MHz clock speed, 2Mb memory and 60Mb hard disk which costs £2,799 for ten, compared with £3,195 for one.

Julie Hansen

You've seen windows before. But never anything that will window DOS, UNIX and OS/2 applications all at the same time.

In the 1980's we saw the first industry standard operating systems. And, as such, able to be run on hardware platforms from several manufacturers.

Now NCR's Cooperation introduces the next stage in software architecture.

An integrating environment for the 90's - linking users, applications, information and networks.

Which means that a user can have a window to a host processor running a mainframe application, windows to both OS/2 and UNIX servers, as well as windows to DOS applications. All running cooperatively on the same workstation.

Even better, Cooperation can analyse the end user's activities, and combine data from several windows to make the user even more

productive. So, instead of having to access a number of screens, a business executive can find all the needed information on one screen automatically.

Because Cooperation uses object-oriented technology, both information and any operations that can be performed on that information are bundled together. (The data can just as easily be text, graphics, voice or video - or any combination of them.)

When users want to access or manipulate an object, such as a budget to be revised or printed out, they simply click on an icon to request the object - whether that object resides across the hall or around the world.

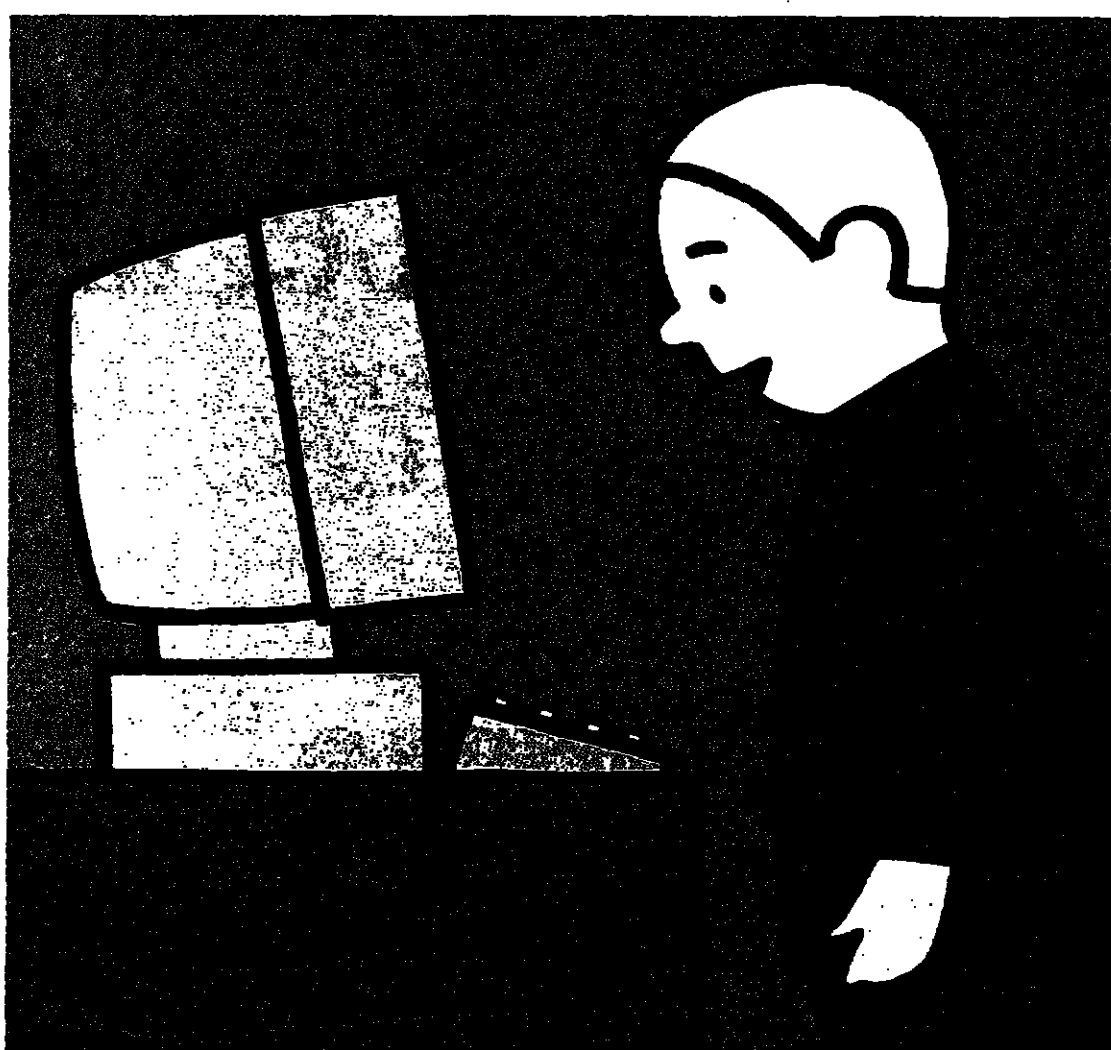
And if they want information, an Information Storage Manager enables users to retrieve documents anywhere in the enterprise by date, key words, author or content - without needing to know where the file is, or what its name is.

Cooperation will run on any industry standard Intel® 386- or 486-based PC running DOS at the client, and any industry standard Intel Micro Channel based computer running OS/2 SE or UNIX V.4 at the server.

And what we have just described is only a tiny part of what Cooperation has to offer.

You need to see it to believe it.

For further information, get in touch with NCR.



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NCR

Open, Cooperative Computing.
The Strategy For Managing Change.

BUZZWORDS AND TECHNICAL TERMS

FOR the reader from a non-technical background, here are some of the technical terms and phrases used in connection with portable computers.

■ LCD display - liquid crystal display. A combination of polarizing filters and twisted liquid crystals creates a liquid crystal display.

■ TFT screen - thin film transistor technology, used in computer screens.

■ CCFT - cold cathode fluorescent tube.

■ Pixel - short word for picture element - the individual dots that make up a picture on a computer screen.

■ Backlighting - when the computer's display is lit from behind to make the screen brighter.

■ VGA - video graphics adapter.

■ NiCad cells - rechargeable nickel-cadmium batteries.

■ NiMH batteries - nickel-metal hydride powerpacks, initially developed in Japan by Sanyo.

■ APM - advanced power management.

■ IC - integrated circuit.

■ BIOS - basic input-output system (PC architecture).

■ DOS - Disc Operating System.

■ FDD - floppy disk drive.

■ SCSI - small computer system interface for disk and tape.

■ SSD - solid state disc.

■ API - application program interface.

■ RAM memory - a volatile Random Access Memory where text and data is stored temporarily when the computer is being used.

■ KB - kilobyte or 1,024 bytes; many personal computers have 640 KB RAM.

■ ROM memory - a permanent Read-Only Memory which stays in the machine even when the PC is turned off.

■ Mouse - a handheld device that, when rolled across the desktop, causes a pointer on the screen to move.

■ Spreadsheets - performing calculations and developing statistical models.

■ Database systems - a way of storing and retrieving information; does the job of a card index in seconds.

■ Pen computers - they come in several guises, although most are electronic tablets which resemble a Victorian school slate, complete with a stylus or "pen". The pen is used to write free text, fill in boxes or indicate sections of diagrams on computer screens.

□ Useful reading for first-time computer-users:

□ "What to do when a micro lands on your desk" by Glyn Moody and Marnet Dubois; Computer Weekly Publications.

□ "PC Crash Course and Survival Guide," published by Scandinavian PC Systems.

Michael Wiltshire



DESIGN FOR NEW TOKYO NETWORK

Intelligent Networks, the London-based computer systems integrator, is using Amstrad colour laptops for its design and implementation of the new Tokyo Sugar Exchange network. Peter

Drake, chairman of Intelligent Networks, pictured above, chose the Amstrad for its high resolution colour screen and the ability to take a wide variety of network design cards.

THE PHILIPPINES

Monday February 17 1992

SECTION IV

As the Philippines moves towards a democratic transfer of power, many Filipinos approach this milestone disappointed and impatient at what they believe is a lack of progress towards both economic and social stability. Yet a new president will take over amid signs of renewed optimism. Richard Gourlay reports

Rocky road to transition

SIX years after President Ferdinand Marcos's 20-year grip on power was broken in a popular rebellion, the Philippines is again approaching a turbulent transition. Despite seven coup attempts, President Corason Aquino has confounded her detractors by surviving and is steering the country towards that rare south-east Asian event, a democratic transfer of power. Judged by the yardstick of democracy, a peaceful hand-over after the May elections will be viewed as a significant achievement for Mrs Aquino. Yet the restoration of elected institutions has been fraught with difficulties and has yet to provide the foundations for the kind of economic growth enjoyed by most of the country's neighbours.

Swept along by understandable but unrealistic optimism immediately after Marcos fled in 1986, many Filipinos approached the transition with disappointment and impatience at what they saw as a lack of progress towards economic and social stability.

The path to a more predictable future has been complicated by the sudden departure of US bases from the Philippines by November this year. Triggered by the Senate's refusal to ratify Mrs Aquino's new treaty with Washington, the closing of the bases heralds fundamental changes in the often emotional relationship between Philippines and their former colonial rulers. The

importance of the Philippines to US projection of power in the Pacific was bound to diminish with the collapse of the Soviet Union and Washington's latest problems. Yet the abrupt end to the historic relationship and the imminence of the withdrawal have yet to be fully appreciated. Quite suddenly the Philippines will have to strengthen its ties with Asian neighbours and come to terms with the growing regional importance of the old adversary, Japan.

The looming elections have so far provided few pointers as to how the Philippines will emerge from this transition. In an atmosphere somewhere between high drama and farce, eight serious candidates have lined up to succeed Mrs Aquino, including Mrs Imelda Marcos, the former First Lady accused of looting millions of dollars from her country.

Mrs Marcos faces more than 100 charges ranging from money smuggling to theft, and probably stands little chance of winning the election. But she is well enough financed not to be written off as a nuisance candidate.

Against this background of uncertainty investors are once again intoning the familiar refrain - "wait-and-see". This is exactly what the Philippines could do without as the country emerges from a year of negative per capita economic growth.

Yet despite the destabilising effect of the elections, the



Manila: money which is already pouring into the country to fund election campaigns is expected to fuel a consumer-led upturn

gloom that hung over the economy for much of last year is beginning to lift. Foreign exchange reserves are at an all time high as migrant workers, driven abroad by the eruption of the Mount Pinatubo volcano, remit more dollars. A revenue-raising levy has slashed imports. Money already pouring back into the country to fund election campaigns is also expected to fuel a consumer-led mini-boom which optimists hope will tide the country over until investment can lead recovery after the elections.

This recovery could, however, be substantially diminished if the main opposition candidate is elected. Mr Eduardo Cojuangco, the most accomplished of Mr Marcos's business cronies before he fled with the dictator in 1986, is still widely suspected of favouring the protected, monopoly-dominated form of capitalism nurtured by his former boss to the lasting detriment of the country. If he wins, investors could well go to ground, Manila's businessmen fear that a similar cocktail of

inward-looking economic nationalism could be ushered in by Senator Jovita Salonga, the Liberal candidate.

On the other hand, should either of the ruling LDP party's two candidates win, there is likely to be a continuation of recent movement towards economic liberalisation. The LDP's chances have been weakened, however, by Mrs Aquino's endorsement of retired General Fidel Ramos as her preferred successor, rather than Mr Ramon Mitra, the Speaker, who won the nomination of his party's delegates.

It is an example of the sort of decision made by Mrs Aquino that has bemused observers and lost her much of her early rapturous support at home and abroad. Despite an enviable mandate for change, she is now widely criticised as having led a government of missed opportunities. Most damaging has been the administration's inability to control the nationalist-dominated Senate, even though Mrs Aquino hand-picked most of the incumbents. The Senate's refusal to

endorse her decision to prolong the US bases agreement was one of its more notable acts of rebellion.

Yet at the eleventh hour, the Senate fell into line with the administration on the equally crucial question of economic management. By passing new revenue-raising measures during its last hours in session, the Senate has given the new administration a chance to tame the burgeoning domestic debt which has kept local interest rates high and discouraged investment.

The new measures also appear to have persuaded the International Monetary Fund to approve a new austerity programme which clears the way for new foreign aid and an important rescheduling of \$5.5bn of commercial debt.

In any case, to lay all blame at Mrs Aquino's feet, as her critics are doing, is simplistic. Many of the problems she has confronted were inherited and would have been passed onto the next president whoever replaced Marcos. Foreign debt, now standing at \$29bn, has been a running sore. And the army, for so long the policeman of martial law, has steadfastly refused to accept that it should be subservient to civilian government. Few observers will put money on the military remaining in their barracks.

More reasonable Filipinos, while welcoming the likelihood that almost any new president will provide more decisive leadership, nevertheless point out that Mrs Aquino leaves some solid foundations on which to build.

The communist-led insurgency, for example, has been badly damaged not only by the collapse of role models in east-

ern Europe but also by Mrs Aquino's commitment to democracy. Delivery of some basic services such as roads, schools and healthcare to remote areas might be the clinching final blow against the guerrillas as it was against Thailand's insurgents in 1984.

On the economic front, the dismantling of the big Marcos monopolies and crony capitalism, while not complete, has liberated local entrepreneurial flair, particularly in the important Filipino Chinese community. All they would seek from a new president is a continuation of the process that is slowly edging government out of business. Last month's privatisation of Philippine Airlines was the latest successful move along this path.

If the government supplies the stability and better infrastructure - the country is facing a serious power shortage - business will resume investing, the argument goes. Already in Cebu Island and Cavite province where the local political leadership is strongly pro-business, pockets of dynamic investment-led growth have sprung up as an example of what could happen elsewhere.

In recent months, the government has also adopted important economic reforms. It has relaxed foreign exchange rules, greatly increasing exporters' flexibility and reducing red tape. And it has begun to undo damage done to foreign investor sentiment by Supreme Court interference in a Taiwanese company's plans for a \$250m petrochemical plant. After the court's ruling, the investor packed his bags and went home.

The new investment code now explicitly presumes projects are acceptable unless specifically excluded, reversing the previous rules that said most investments needed regulatory approval.

These reforms remain, however, humble beginnings compared to what Thailand, Malaysia and even Indonesia have already achieved. But as the country moves drastically out of the gloom of the Marcos years, Filipinos who can look beyond the clamour of the forthcoming elections are nevertheless tastering on the verge of optimism.

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THE PHILIPPINES 2

Victor Mallet reports on the economy

Important issues still need to be tackled



Marcos (left) bequeathed a legacy of foreign debt and corruption. Finance minister Jesus Estanislao (right) realised that inflation was threatening to run out of control

ANGUISHED Filipinos often ask themselves why their country, which was once among the most prosperous in Asia, has been left behind by its rapidly developing south-east Asian neighbours.

Several explanations spring to mind. The late President Ferdinand Marcos, overthrown in 1986, bequeathed a burdensome legacy of foreign debt and corruption and his supporters have undermined economic confidence by trying repeatedly to unseat President Corason Aquino with a series of botched coup attempts.

Mrs Aquino herself has failed to reduce the glaring inequalities between the mass of the Filipino people and the oligarchy of ruling families which dominates agriculture and business and which likes to protect local industrial ventures behind high tariff barriers.

Above all, her government and the Congress have fallen prey to the temptation to bow to popular pressure at moments of crisis, first taking necessary decisions and then watering them down so much that they hardly do anything to address the original problem.

Such tendencies are not new; earlier this century the flamboyant Filipino politician Manuel Quezon criticised his rival Sergio Osmeña for taking politics too seriously. "Our people do not understand that," he said. "They do not want it. All they want is to have the present problem solved, and solved with the least pain. That is all."

Given the Aquino administration's early failure to fulfil the hopes of its supporters, the reformist economic record of 1991 and early 1992 is somewhat surprising. Whereas most politicians use their "honeymoon period" at the start of a term of office to give their citizens unpleasant economic medicine - and hope to reap the benefits of a healthy economy at election time - the Aquino Administration has done the opposite, letting the economy drift for the first few years and suddenly imposing necessary but unpopular measures shortly before the elections due in May.

Part of the reason for this change of attitude was the realisation by the formidable economic team of Mr Jesus Estanislao, the ascetic finance minister, and Mr Jose Cuisia, the central bank governor, that the budget deficit, the trade deficit and inflation were threatening to run out of control in 1990.

At the same time the International Monetary Fund has been withholding its seal of approval until financial discipline is restored. By the beginning of this year, it was clear that the IMF's 1991 targets were going to be met, and the Senate's approval this month of a number of tax reform measures appears to have paved the way for an IMF endorsement of the Philippines, a move which would release IMF and other donor money and pave the way for a rescheduling of \$5.3bn of foreign debt.

The total public sector deficit fell from 5.8 per cent of gross domestic product in 1990 to about 2.7 per cent last year, and it is expected to remain under 3 per cent in 1992. Economists agree that the 1991 figures were in line with IMF demands but they caution against reading too much into the numbers; state spending was low because the budget was not approved until well into the year and capital expenditure, boosted again this year by road-building programmes, bore the brunt of the 1991 cuts.

"Last year can't be used as a test of political will for lowering the deficit," says one economist.

Nevertheless, the government did inflict a certain

amount of pain to meet its targets. A special import levy of 9 per cent was in force, although it has now been lowered to 5 per cent and is to be abolished by June. Imports were stagnant, while exports rose about 6 per cent. The economy as a whole registered zero real growth, which meant falling living standards for the burgeoning population. This year real growth is expected to reach 2-3 per cent, approximately in line with the population growth rate.

In a confident mood, the administration has embarked on several important economic reforms

Some good news has lightened the gloom. Inflation has dipped to around 17 per cent and is expected to fall further. Textile exports and tourist arrivals are buoyant, the remittances of Filipino migrant workers in the Gulf and elsewhere are higher than expected, and oil has been found off Palawan. Gross international reserves rose to more than \$4bn at the end of last year.

Now in a relatively confident mood, the administration has

embarked on several important economic reforms. Exporters are now permitted to retain 40 per cent of their foreign exchange earnings, instead of 2 per cent. Indeed, the ready availability of dollars - because of restricted demand for imports, and electoral campaigns financed by overseas dollar holdings - has all but eliminated the currency black market and strengthened the peso, leading to fears that the competitiveness of exports will be affected.

A new local government law gives local authorities expanded powers to raise taxes, which may encourage further regional development as pursued with notable success by the island of Cebu and the region of Cavite south of Manila. A new foreign investment law has been enacted to attract foreign capital.

On the negative side, a shortage of electricity is threatening industries in the southern island of Mindanao and there are fears that the main island of Luzon may also be affected. And while Filipinos hope for a consumer-led economic recovery boosted by election spending, the public sector deficit has helped to stifle productive investment by sucking savings into high-yielding treasury bills.

Attempts to cut the overall public sector deficit have been stymied partly by the problems of a central bank plagued by liabilities dating from the Marcos era and costing some 30bn pesos a year to service.

The bank's problems are not fully understood either in the cabinet or in the press, where it has been accused of inefficiency for making losses.

"In the early 1980s the central bank was ordered by President Marcos to provide forward cover for the oil companies," says Mr Cuisia, who wants the government to take over the liabilities and leave the bank to handle monetary policy unhindered. "Now we have enough dollars we may unwind these swaps," he says.

Under Marcos, says Mr Cuisia, the bank was also ordered to acquire the obligations of state companies and to pay national subscriptions to bodies such as the IMF and the World Bank (for which a presidential decree forbade the bank to charge interest).

Nature has not been kind to the Philippines these past few years, inflicting an earthquake, a volcanic eruption, a typhoon and a catastrophic landslide on the islands. But the steady recovery in 1992 and 1993 depends largely on whether the present government can hold its nerve up to the election and on whether the new administration will build on the reforms of the preceding year.

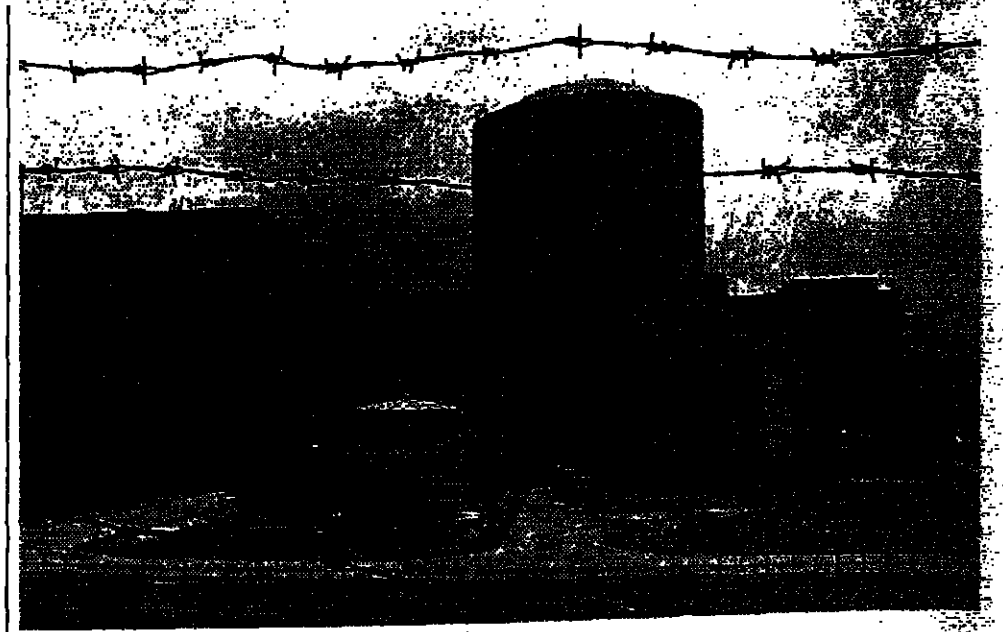
Several important issues still need to be tackled, including the state of the environment and the conservation of remaining natural resources in a country still heavily dependent on agriculture, fishing and forestry. Mr Enrique Estanislao of the Center for Research and Communication says he is "excited about the future" because he believes the recent economic reforms will help the Philippines catch up with its partners in the Association of South East Asian Nations (Asean).

"The Philippines is part of the Japanese plan, so the Philippines has to be helped to develop by Japan," he says. "Japanese money is no longer going into Indonesia and Thailand because they are at maximum absorption. The Philippines is the last game in the Asean town."

Others are less optimistic that the Philippines can emerge from the economic doldrums of the past decade without decisive actions by its own governments.

As Mr Estanislao put it in a speech last month: "The government has to be the catalyst of the world how to develop through exports. We have coined the appropriate slogans, but ask our exporters. All they ask is to be put on an equal footing with others. What has been our response until very recently? A clear preferential treatment for importers and industrialists who cannot see beyond the confines of our internal market; and a strong bias against exporters and agriculturalists who have been manfully scouring world markets for foreign exchange."

"Isn't it time we moved beyond slogans, and put substantive actions behind grand words?"



The 820MW nuclear power station in Bataan: abandoned before it was commissioned

ELECTRICITY SUPPLY

Power crisis bites

NOT FOR the first time, parts of the Philippines are suffering from a shortage of electricity. The southern island of Mindanao has been worst hit and consumers have endured blackouts - or "brownouts" as they are known locally - for up to 12 hours a day.

Businesses - from cement factories to fish canneries, some of them lured to the island by the prospect of cheap hydro-electric power - have been forced to reduce their output or use their costly standby generators for extended periods. Prices of the affected products are expected to rise.

Further north, the grid for the island of Luzon and its capital Metro Manila has barely enough electricity to cope with demand, which will mean more power cuts if part of the ageing and over-stretched generating system fails. Had the economy been growing rapidly instead of stagnating, the shortages would be even worse.

The single most important cause of the power crisis - which, besides the elections, has become the country's hottest topic of conversation and controversy - is the lack of decisive action by the government to build new power stations. The government has not been helped, it must be said, by the popular tendency to complain about the financial losses and inadequacies of the state-owned National Power Corporation (Napocor) at the same time as protesting about modest increases in the price of electricity.

"Whereas in other countries with fast economic growth the price of oil and electricity is accepted as an economic fact of life," said an exasperated Mr Jesus Estanislao, finance minister, last month, "here it has remained a subject of endless debate and fruitless discussion." A drought affecting hydro-electric dams on Min-

danao, a dispute between Napocor and the local community over the island's Agus I dam, and a range of environmental concerns have exacerbated the crisis.

Deforestation has speeded up soil erosion and silted up dams. Power stations on Luzon belching pollutants from poor-quality local coal have alienated nearby communities and are said to have reduced agricultural output.

The Japanese-funded Calaca project shows how badly things can go wrong. The first 300MW unit was designed to burn local coal shipped from Samar Island but the coal turned out to be of worse quality than expected and had to be mixed with Australian coal. The local coal was also inclined to catch fire spontaneously in the yard, causing forest pollution and raising a storm of local opposition to the second 300MW unit.

A contractor was chosen three years ago, but the Department of Environment and Natural Resources (DENR) has declined to issue the environmental clearance certificate which would allow work to begin.

Meanwhile, a 300MW project to be funded by the Asian Development Bank at Masinloc has been stalled - apparently because the mayor has relatives in Calaca - although it has been designed to use higher-quality imported coal. Environmental and administrative delays have also afflicted geothermal energy projects and all the while the existing plant becomes older and more prone to breakdowns.

The authorities, although able to use the International Monetary Fund as a scapegoat for electricity price rises, are now learning the hard way that it might be worth facing a mild outcry today in order to avert power cuts and the inevitable anger of the public in the future.

But their response to the mounting power crisis has been to adopt expensive, quick-fix solutions, including the purchase of large-mounted diesel generators. Such increases in generating capacity as there have been in the past five years have come from these mobile barges and from the 200MW gas turbine project implemented by Hopewell of Hong Kong (the turbines were supposed to be used occasionally to top up supplies at times of peak demand, but their continued running is now essential simply to maintain the base load).

In Mindanao, Napocor is hoping for rain and negotiating to start operating the Agus I dam. "We really have very, very serious crisis in Mindanao at the moment," says Mr Pablo Malib, Napocor's chief executive officer. He admits candidly that the corporation has failed to explain itself properly to local communities affected by power projects.

President Corason Aquino, bowing to public pressure, has ordered a shake-up of Napocor's management and demanded that the DENR issue environmental licences to new power plants. There has also been a delirious talk of reviving a 620MW nuclear power station in Bataan, built by Westinghouse of the US but abandoned before it was commissioned by the Aquino government after the overthrow of the late President Ferdinand Marcos.

Even if the government launches a decisive energy strategy now, it will take several years before the country sees the results. The current power shortages are profitable for the foreign manufacturers of generators and power barges, but not for the Philippines.

Victor Mallet

THE MILITARY

Doubts over democracy

SIX YEARS ago a failed military coup triggered the popular uprising that brought President Corason Aquino to power, ending 14 years of army-backed Marcos dictatorship. Seven attempted coups later it is clear that disgruntled sections of the army have not lost their taste for intervening in civilian government.

While none of the coups has succeeded, the durability of the democratic institutions which President Aquino restored is still in doubt as national elections loom in May. Mrs Aquino has constantly had to look over her shoulder at a section of her military that sneers at civilian supremacy.

Many of the officers with political ambitions look longingly at Thailand where the generals rule. But apart from their shared taste for intervention, similarities between the two countries are minimal. Thai generals go out of their way not to disrupt business. The Philippines rebels in the 1989 coup, however, seized and shot up hotels and offices in Manila's business district, disrupting the country's faltering economic recovery dead in its tracks.

There are some signs that the dissenters in the army are becoming less influential under General Lisandro Abadía, Chief of Staff of the armed forces. But it could take years before the military can be guaranteed to stay in their barracks at times of political tension.

"Marcos established a constitutional coup with the support of the military," says General Rafael Nieto, National Security Adviser to the President, referring to the declaration of Martial Law in 1972. Then Mrs Aquino came to power in the aftermath of a bungled military coup against Marcos.

"The military have got used to coups," says Gen Nieto. Perhaps the most important



Gen Fidel Ramos: ordered the rebels to do press-ups after right-wing Marcos loyalists launched a bizarre coup attempt

change since the 1989 coup is that financial and political support for the leading renegade officer, Colonel Gregorio "Gringo" Honasan, appears to have dwindled. The army believes that a dozen rebel officers, including Honasan, and 100 enlisted men who took part still remain at large.

Honasan's organisation - the Reform the Army Movement (RAM) - has also lost much of the credibility it once enjoyed. During the 1989 coup, this junior officers' pressure group that claimed to campaign for professionalism in the army, openly linked with right-wing Marcos rebels in a crude grab for power.

To outsiders, the army's leaders still show an astonishing degree of tolerance towards these renegades. Gen Abadía, for example, feels able to describe Honasan as a "gentleman officer" with whom he can sit and discuss surrender terms, even though the Colonel's troops bombed Mrs Aquino's palace during the last coup.

It is only the latest display of army ambivalence towards its rebels. After right-wing Marcos loyalists launched a bizarre coup attempt in 1986 by taking over the Manila Hotel and swearing in a new president, General Fidel Ramos, then chief of staff, ordered the rebels to do press-ups as a punishment.

Such is the residual distrust of the army that some observers believe the army might take over if the next president, competing against several other candidates, is elected with only a small minority of the vote.

Gen Abadía says intervention is unlikely. Only if there is "massive fraud or disorder" would the army "restore order as mandated by the constitution", he says.

Ironically, just as military unity appears to be returning, the departure of the US bases from the Philippines might rekindle dissent among the ranks. The issue is money. As part of the bases compensation package, the US pays about \$200m in military assistance for helicopters, signals equipment, weapons and training.

As part of the defence cuts as much as the ending of the bases agreement, the US military aid programme is likely to be cut by at least half. This will put enormous additional strains on an already creaking national budget. While the Philippines will continue to receive equipment for several years under this programme, Gen Abadía has said he will be requesting an additional \$bn pesos to fill the gap left by cuts in US aid.

If the military does not get the funds, there is a good chance that leaders will claim the army does not have the tools to tackle the Communist-led New People's Army. In fact, the Communist challenge is already dwindling thanks to the collapse of Communist models in eastern Europe and internal divisions among the Communist party leadership.

The army reckons numbers under arms have fallen to 11,000 from 16,000 a few years ago. And Gen Abadía is forecasting that by 1993 the army will have crushed the political backbone of the movement and the insurgency will be no more than a policing problem.

Such might be optimistic. Undoubtedly, current military tactics of combining military and propaganda offensives, are reducing NPA influence, even though the army is still too often linked to killing and torturing of innocent civilians. But the government is still not building enough rural roads, health clinics and local industries to encourage the kind of economic growth on which lasting victory over the NPA must be based.

The generals in Manila are critical of the way civilian officials have failed many rural areas and made the army's task more difficult. It is the most convincing of their complaints against Mrs Aquino's administration. But as a result of luck (the collapse of European Communism), restored democracy and Mrs Aquino's residual popularity, the Communists are facing their most testing time.

It is a far cry from the last days of martial law when US intelligence reports said Marcos had led the political situation deteriorate so much that "ultimate defeat and Communist takeover" were on the cards.

Richard Gourlay

Philippines National Bank STATEMENTS OF CONDITION December 31, 1991 and 1990 (In Million US Dollars)		
	1991	1990
RESOURCES		
Cash and other cash items	54.9	36.4
Due from Central Bank of the Philippines	300.9	168.6
Due from other banks	290.0	218.3
Interbank loans receivable	255.5	220.2
Investments and trading account securities	799.1	476.6
Loan portfolio - Net	1,181.7	1,046.6
Equity investments in allied/non-allied undertakings - Net	47.5	01.4
Bank premises, furniture, fixtures and equipment - Net	224.2	143.3
Real and other properties owned or acquired	21.5	19.1
Other resources	320.1	253.2
TOTAL RESOURCES	3,495.4	2,623.7
LIABILITIES		
Deposit liabilities:		
Demand	408.8	387.5
Savings	1,044.2	651.1
Time	911.2	601.6
	2,364.2	1,640.2
Bills payable	213.2	210.7
Margin deposits/cash letters of credit	39.5	64.5
Treasurer's/Cashier's Manager's Glt		
Checks and payment orders payable	60.0	69.2
Accrued taxes, interest and other expenses	42.7	32.5
Dividends payable		36.0
Other liabilities	297.8	288.1
TOTAL LIABILITIES	3,017.4	2,339.2
CAPITAL FUNDS		
Capital stock	287.1	216.1
Surplus	136.6	66.3
Surplus reserves	3.4	3.1
Revaluation increment in land	50.9	0.0
TOTAL CAPITAL FUNDS	478.0	284.5
TOTAL LIABILITIES & CAPITAL FUNDS	3,495.4	2,623.7
CONTINGENT ACCOUNTS		
Unused commercial letters of credit	227.2	374.7
Bills for collection	250.4	201.8
Future exchange bought	65.7	91.4
Future exchange sold	12.5	48.4
Trust department accounts	242.7	94.0
Other contingent accounts	77.0	261.0
TOTAL CONTINGENT ACCOUNTS	875.5	1,072.3

THE PHILIPPINES 3

■ FOREIGN RELATIONS

US withdrawal raises questions

"We won't stay where we're not wanted, and if they want us out, we're gone." So said Mr Dick Cheney, US Defence Secretary, after the Philippines Senate voted in September against a new 10-year treaty which would have allowed the US continued use of the Subic Bay naval base.

The Senate's momentous decision means that the last US personnel should have left Subic by December 31 this year, ending nearly a century of American occupation of the deep-water harbour some 50km north-west of Manila.

The nearby Clark air base was abandoned in the middle of the treaty negotiations after Mount Pinatubo erupted and smothered the facilities in ash. Many Filipinos, even those who opposed US bases on their soil because of genuine feelings of nationalism or a desire to score political points, have yet to grasp that the Americans are really leaving.

But the Americans, who took control of the Philippines by defeating the Spanish in 1898 and established the Subic base three years later, are no longer so anxious to keep a costly military presence on the island now that the Soviet Union has collapsed and their own budget deficit has grown so large.

The economic and social impact of the American withdrawal from Subic, the supply base and repair yard for the 7th Fleet, will be substantial. Some 40,000 Filipinos stand to lose their jobs and direct US aid to the military and to civilian programmes is certain to fall from the current annual level of about \$400m.

The indirect effects are harder to



A huge mushroom cloud over Clark air base after Mount Pinatubo erupted

But Mr Jose Guisno, the central bank governor, remains sanguine. "It's significant," he says. "But it's not going to mean the end of the Philippines either."

According to one school of thought, the Filipinos bungled the negotiations with the Americans by dithering for too long and demanding too high a price.

But they could hardly have foreseen the eruption of Mt Pinatubo - which took Clark out of the equation - and even if a deal had been struck before the volcanic disaster successive US administrations would have been hard pressed to secure funds from Congress each year in exchange for a defunct air base covered in ash.

In any case, the political confusion over the bases in the Philippines had as much to do with the country's schizophrenic attitude towards its former colonial masters as with greed.

Filipino commentators are apt to criticise US involvement in the country (on nationalist grounds) in the same breath as asking for more assistance (on the basis of the longstanding ties between the two peoples).

The close relationship, albeit weakened by the rejection of the new treaty, will certainly continue. A mutual defence pact dating from 1952 and providing for joint military exercises remains in force.

American culture has permeated the Philippine islands; about 1m Filipinos live in the US and thousands of Americans are resident in the Philippines.

For the workers at Subic and the towns around the bay, the most immediate

concern is the future of the port and the 5,800 hectares which make up the base. Here too the government was slow to react, suggesting at first that the issue could be addressed by the new administration due to take over after the May elections.

Local residents, and the Americans who are packing up their movable equipment and leaving, convinced President Corason Aquino's outgoing government to start dealing with the problem before the voters went to the polls.

Clark air base, after all, was handed over to the military and looted after the Americans left.

Spurred on by the energetic mayor of Olongapo, Mr Richard Gordon, officials are asking proposals for a free port and talking hopefully of "a new Hong Kong", but it remains to be seen whether such ideas will ever come to fruition.

Residents are furious not only because the Senate rejected the 10-year treaty, but also because the Americans were told to leave within one year instead of three.

"Our mission is first to preserve, conserve and maintain the resources we have on base," says Mrs Boots Lagay, a training supervisor at Subic and spokeswoman for a movement promoting the "Autonomous Region of Greater Olongapo" (ARGO).

"It's a good one, and we don't want it to become another Clark. Subic Bay can be a free port and the base workers are willing to invest their hard-earned savings."

Mr Gordon, citing the sentimental value of American "work experience and sexual



The American flag is lowered for the last time as the base is abandoned

Unfortunately, the Americans seem inclined to take away the valuable floating dry-docks used for ship repair. And although the Subic workers have many of the necessary skills for commercial shipyard operations, they will be competing with established yards in neighbouring countries.

Subic, western diplomats say, was ideal for the US Navy because it was a "one-stop shop" allowing for replenishment, training in conjunction with Clark, rest and recreation, and repairs. Commercial ship repair alone might not be viable.

In the meantime, the US departure from the Philippines will leave the country in a weak position with regard to its Asian neighbours. The armed forces are poorly equipped, often unprofessional and preoccupied with politics, while the economy is lagging behind those of the other south-east Asian countries. Slowly but surely the influence of the Japanese, who occupied the country with notable cruelty during the Second World War before they were driven out by the Americans, is making itself felt.

Japan is the country's largest aid donor and the source of much foreign investment. Young Filipinos are largely unaffected by their parents' memories of the war. No longer can the foreign policy of the Philippines be concerned almost exclusively with the US.

"The Philippines are going to have to take some very significant foreign policy decisions," says one diplomat in Manila. "What is their relationship with ASEAN? To what extent do they want to maintain a US defence relationship? How are they going to deal with the Japanese?"

Already, in between the brothels and the American hamburger joints in downtown Manila, the karaoke bars are spreading as the US sailors head home from Subic.

Victor Mallet

■ PRIVATISATION

Dogged by legal challenges

Privatisation was among the tools used to rescue the Philippine National Bank (PNB) and the Development Bank of the Philippines, two government-owned institutions abused and exploited by Marcos and his cronies.

The government has taken

The government is keen to rid itself of loss-making corporations

over some 140bn pesos in problem loans and other assets, and made the APT responsible primarily for selling these non-performing assets, both financial and physical. It is against this background that the APT's achievement in grossing 26.3bn pesos by disposing of 255 out of the 389 non-performing assets in its portfolio must be measured. In all, the privatisation programme has netted 41.1bn pesos.

Part of the problem is that the privatisation programme was created more to clear up the mess left by the regime of the late Ferdinand Marcos than to satisfy any ideological craving for free enterprise. In 1986, the same year he came to power, President Corason Aquino created the Committee on Privatisation (COP) and the Asset Privatisation Trust (APT), two bodies whose mandates have recently been extended because of the slower-than-expected pace of disposals.

With the APT's remaining non-performing assets either completely deteriorated or hard to sell because of legal impediments, the focus is now shifting to the 50 or so unsold state companies out of the 123 corporations which were earmarked for sale by the APT and a number of state parent organisations such as the Government Service Insurance System.

The process has been slowed both by the reluctance of the Commission on Audit to accept the low market values of some of the assets and by the doubts of potential investors in an economic climate affected by natural disasters and the Gulf crisis.

"I think in the experience of other countries, five years is really too short," says Ma Guisno, executive officer of the Committee on Privatisation.

The government is keen to rid itself of loss-making corporations, but its various agencies are sometimes less than

wholehearted in their commitment to the principles of privatisation. "They would not like to lose whatever they have now by disposing of it," says Mr Jose Guisno, associate executive trustee of the APT.

The GSIS, for example, is supposed to sell 40 per cent of the Manila Hotel this year, but senior officials, citing the historical and sentimental value of the former headquarters of Gen Douglas MacArthur, are in no hurry to dispose of a profitable company without debts.

Furthermore, assets sold by the state often fall into the hands of the oligarchy of wealthy families which has always run the country. "I think that's one of the

flaws of the privatisation programme," says Mr Sison. "What's happening here is that we're transferring from one monopoly to another."

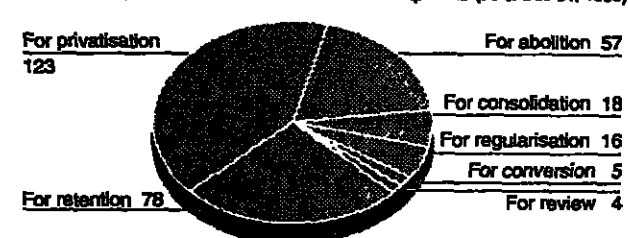
Mr Jose Guisno, governor of the central bank, expresses his satisfaction that "more than 90 per cent of what was targeted has already been privatised", although he acknowledges that the sale of big-ticket items will take time.

Thirty per cent of the now profitable PNB has already been sold on the stock market, a further 21 per cent is expected to be offered soon, and President Aquino has approved the eventual sale of 100 per cent.

The Philippine Plaza hotel

Government Corporate Sector

Total: 301 Government owned & controlled companies (as of Dec 31, 1990)



Source: Committee on Privatisation

was finally sold last year to Allied Kalamia, a Hong Kong-Japanese joint venture. But an agreement on financing for the \$325m sale of Nonoc Mining and Industrial Corporation to Philippine Nickel Corporation has yet to be finalised, and other large companies, including the National Steel Corporation and the Paper Industries Corporation of the Philippines, are still waiting for buyers.

The government's efforts to sell two thirds of PAL were boosted by higher-than-expected profits in recent months - after a decade of losses - and by the government's decision to assume the airline's foreign debt of \$519m. "There is an economic need to infuse new money into PAL," says Mr Feliciano Belmonte, president of PAL and GSIS, "and GSIS, which is a pension fund for government employees, is not the right kind of sourcing."

Victor Mallet

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THE PHILIPPINES 4

INVESTMENT

Belated attempt to remedy matters

THE low level of domestic savings and of local and foreign investment in the Philippines is one of the fundamental causes of the country's poor economic performance in relation to its south-east Asian neighbours over the past decade.

In a belated attempt to remedy matters, new foreign investment legislation was brought into force last year, but even its supporters acknowledge that it is only a first step towards improving the whole investment climate.

Between 1981 and 1990, gross domestic investment averaged 20 per cent of gross domestic product, compared to 42 per cent for Singapore, 27 per cent for Thailand and more than 30 per cent for Indonesia and Malaysia, according to the Asian Development Bank.

The Philippines has also been lagging well behind its

ael Barnes, the American vice-president of Philippine Geothermal Inc., on January 17 this year, is hardly likely to encourage western investors already contemplating the election campaign with trepidation. It was not known at the time of writing whether he was seized by left-wingers, right-wingers or criminals.

Americans, furthermore, have been discouraged by the Philippine Senate's rejection of the 10-year lease treaty negotiated by the US and Filipino governments.

Although existing investors, particularly Filipino Chinese, have learned to make the best of the arduous local conditions, potential newcomers are understandably deterred by the poor state of the country's infrastructure - electricity, for example, is sometimes in short supply because of delays in building new power stations - by the litigious nature of the society, and by bureaucracy which can condemn even the most respectable bankers to a nine-month wait for their work permits.

Unhealthy rivalry between different islands or different regions has been known to delay a new project, but the inadequacies of the central government have, on the other hand, prompted some local authorities - in Cebu and Cavite, for example - to promote themselves to Japanese, American, Taiwanese, Korean and other investors with considerable success.

Regardless of the laws in place, the crucial question is whether Filipino governments will put aside their nationalistic distrust of foreign participation in the economy and actually greet foreign investment with enthusiasm. One congressman went so far as to challenge the new foreign investment act as unconstitutional, although he lost his case in the Supreme Court.

The new law allows investors not seeking special incentives to take a 100 per cent

stake in any business, provided it does not appear on a "negative list" of restricted activities. Broadly, the law simplifies investment procedures and means that foreign investors seeking full ownership of a company need not necessarily be located in an export processing zone or engaged in a "pioneer" priority industry.

Stockbrokers, however, say they are unclear as to how the law applies to listed companies - shares are divided into A and B shares, and only the B shares, making up a maximum of 40 per cent of the company, can be bought by foreigners.

A more important aspect of the legislation is that it demonstrates a change in the government's investment philosophy. Before, it was assumed that foreign investment was banned or restricted unless certain conditions were met. Today, it is assumed that the investment

Another concern is the existing labour legislation

is acceptable, provided it falls within official guidelines.

Mr Margarito Teves, chairman of the House of Representatives committee on economic affairs and a prominent supporter of economic liberalisation, says the law "will not be the panacea to our problems", and he is proposing a number of complementary measures.

"This is merely the starting point," he says. "The others address important concerns that are of interest to investors."

He is backing proposals to allow accelerated depreciation of assets for tax purposes, to improve security of land tenure for foreign investors, and to make it easier for foreign banks to operate.

Another concern is the existing labour legislation, which discourages foreign investors by setting minimum wages without substantially helping the workers, who are often underpaid by local employers in any case.

"We have to rely less on foreign loans and more on foreign direct investment," says Mr Teves. "If we encourage and convince our bureaucracy to be more responsive, and find ways to cut the process to the barest minimum, maybe we can attract more investment to the Philippines."

Victor Mallet

REGIONAL DEVELOPMENT

Recovery hopes

TEN miles south of Manila airport, in rolling agricultural land, there is a frenzy of factory building quite at odds with the widely-held view that the Philippines economy is stagnating.

Cavite Province's rice fields are sprouting a crop of industrial parks, export zones, new arterial roads and microwave communications links on the back of a wave of enthusiasm from foreign and local investors.

Once called "The Badlands" because of its reputation as a refuge for bandits, Cavite is now the focus of efforts to develop an industrial belt to the south of Manila.

Governor Juanito Remulla says his zone of "industrial peace and productivity" has attracted 200m pesos of investment since 1986 and has directly created 45,000 new jobs. About half the investment is from Japan, Korea, Taiwan, Hong Kong and the US and the rest from large local groups such as San Miguel.

With the Philippines economy shrinking in real per capita terms last year by 2.5 per cent, Cavite is one of several regional pockets of activity that are keeping recovery hopes alive.

Cebu City, on the central island of Cebu, is perhaps the best known example. In the past three years it has left the rest of the country behind in terms of growth, investment and attractiveness to foreign investors.

A bustling port and trading centre, it is dominated by Filipino-Chinese businessmen.

"The Manila businessman spends his time trying to influence government to get grants and policy changes," says one Manila-based Filipino banker. "The Cebuano knows he has no access so he just dives in and swims. He could not care less about government policy."

As a result, Cebu has developed a thriving native furniture export industry, a large trade in seaweed to the US and an active coconut oil export business.

About half the companies operating out of the Mactan export processing zone are Japanese. Exports from this area have grown about 15 per cent annually over the past three years, despite a wayward typhoon in 1990 which damaged infrastructure and threat-



Coconut farming: Cebu has developed a thriving coconut oil export business - as well as trade in seaweed to the US

ened to derail the regional boom.

For the domestic market, Cebu has also become the southern Philippines centre for cement production, scrap iron consolidation, and a large flour mill and beer brewing centre.

Common to Cebu and the newer but equally promising Cavite, are strong provincial leaders and access to international airports. Cebu's was upgraded by the Americans during the Vietnam war. Governor Emilio Osmena in Cebu is pressing ahead with plans to upgrade the regional infrastructure. With one of the largest local developers, Ayala Land, the local government has tapped private capital, issuing the country's first municipal bonds or CEBU's (Cebu Equity Bond Units).

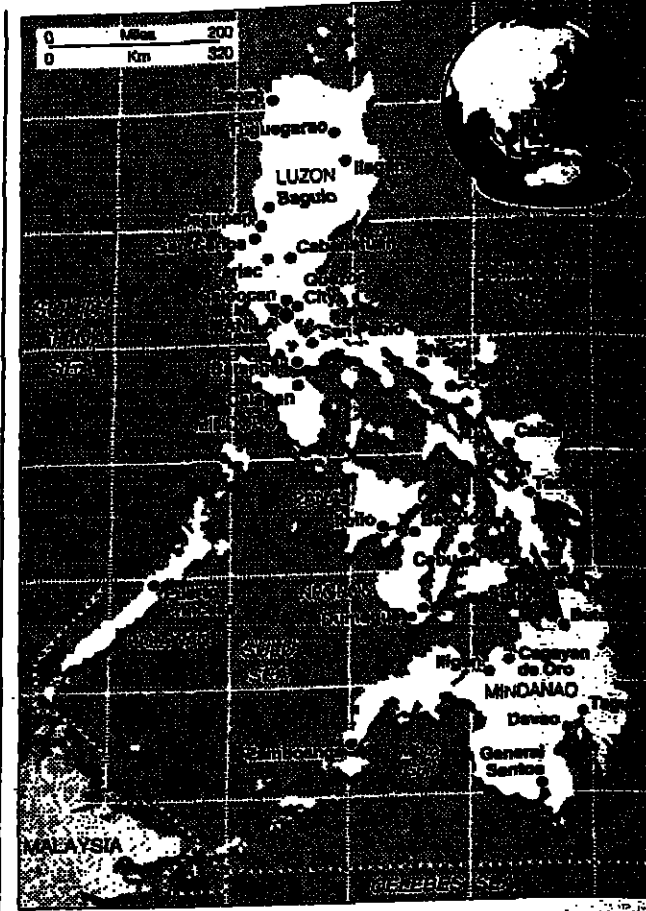
He has also attracted pledges of more than 50m pesos in development assistance from Japan and has cut swathes through Manila's red tape, encouraging a "can-do" mentality.

In Cavite, the firm hand comes from Governor Remulla who has taken 10 years to consolidate diversely-held land holdings so that more than 4,000ha are now available for industrial use.

"Local government should concentrate on inviting in investors to get exports and more foreign exchange," he says.

The most advanced development is the 277ha export processing zone at Rosario, Cavite where more than 100 companies have invested or are about to start building. Investors include a glass manufacturing joint venture between Yamamura of Japan and San Miguel; the US computer components maker Commodore Electronics; Yasaki, the Japanese car parts maker; Maxon, a Korean portable telephone manufacturer; Clarion, the Japanese audio company; and Cavite Apparel, a local exporter of suits and garments.

Richard Gourlay



KEY FACTS

Area	300,000 km ²
Population	61.48m (mid-1990)
Head of State	President Corason Aquino
Currency	Philippine peso
Average Exchange Rate	1990 \$1 = 24.51 Latest \$1 = 25.864

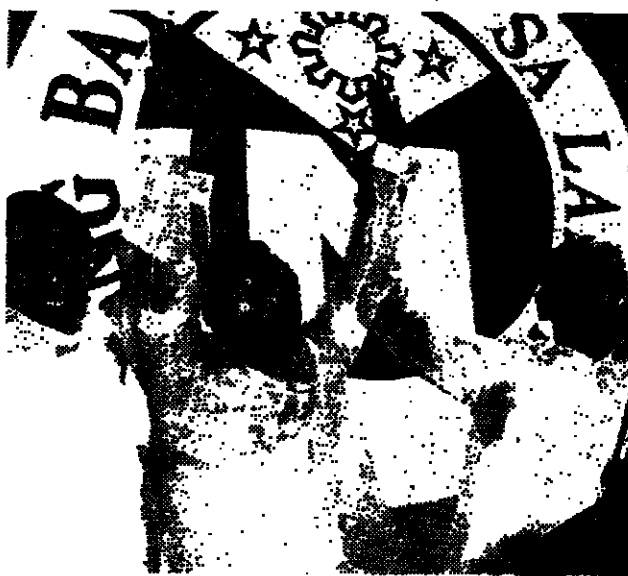
ECONOMY	1990	1991
Total GDP (\$bn)	43.96	41.72
Real GDP growth (%)	3.11	-1.3
GDP per capita (\$)	715	n/a
Components of GDP (%)		
Private Consumption	73.2	74.7
Gross Fixed Investment	21.9	18.1
Stockbuilding	0.7	0.7
Government Consumption	2.4	3.0
Exports	33.8	30.0
Imports	12.6	18.4
Consumer price index (% pa)	0.924	2.426
Reserve money growth (% pa)	14.3	20.7
Broad money growth (% pa)	22.5	26.5
Discount rate (% and period)	10.00	10.75
Stock market (% chg on year)	-41.02	+45.84
Gross external debt (\$bn)	30.327	n/a
Debt service ratio (%)	21.7	n/a
Current account balance (\$bn)	-1.642	-1.233
Trade balance (\$bn)	6.186	8.395
Foreign reserves (\$bn)	12.206	11.094
Foreign debt (\$bn)	-4.020	-3.546
Exports (1990)	37.5	18.2
Imports (1990)	20.5	18.0
USA (%)	4.9	4.4
West Germany	3.9	5.0
Hong Kong	3.9	5.0
Singapore	7.0	4.6

1991 data covers periods to: (1) first half at annual rate; (2) September; (3) second quarter; (4) June; (5) IFC Index, 1991 to end November.

Source: IMF, Datastream, Economist Intelligence Unit

PROFILE: Eduardo 'Danding' Cojuangco

Marcos crony bounces back



Opposition front-runner Cojuangco: businessmen suspect he is still an avid believer in monopoly capitalism

THEY call him Ferdinand Marcos' "super-crony" an "unrepentant protectionist" and the "Pac-man" after the omnivorous computer game monster that eats everything in its path.

He became extremely rich by controlling the coconut industry, the kind of monopoly that undermined the Philippines economy for years under President Marcos. Yet six years after fleeing to exile, Eduardo 'Danding' Cojuangco, the most accomplished of the Marcos business cronies, is back and a serious contender for the presidency.

The fact that Mr Cojuangco - and inside Marcos the former president's widow - should be given the time of day says something about the unpredictable twists of Philippine politics. Incredible though it might seem, Mr Cojuangco is an opposition front-runner.

Through his effective control of the coconut industry, Mr Cojuangco had influence in virtually every village in the country, but he was not able to call in political debts. It is not immediately apparent why.

After Mr Marcos declared martial law in 1972, coconut farmers had to sell their produce to an authority Mr Cojuangco effectively controlled; he imposed a levy on them with which he built the United Coconut Planters Bank that took control of almost all the country's coconut oil mills. And his control of the supply of seedlings rounded out a monopoly that stretched throughout the coconut industry, the country's largest export earner.

Nevertheless, he was considered by many in the country to be a good patron. "Ferdinand Marcos controlled everything in Manila," says

one of Mr Cojuangco's army of campaign helpers. "But in the countryside, poor people earned money. They know Cojuangco as a true friend."

Should he be elected, Mr Cojuangco would most likely regain control of the United Coconut Planters Bank and a sizeable shareholding in San Miguel, the country's largest private employer. These assets and some 400 other companies - Mr Cojuangco says he is unclear how many - are still frozen by a government body looking into the billions of dollars allegedly stolen by Marcos and his business associates.

Mr Cojuangco denies the charge that he is a crony - the description of those who are believed to have benefited financially during the Marcos era - because, he says, he did not receive government loans and he never invested abroad.

More worrying to local and foreign businessmen are Mr

Cojuangco's economic policy ideas.

Many question whether he really had the super-business brain of the Marcos era. Who would not make money if granted a monopoly protected by the president, they ask?

Moreover, while Mr Cojuangco is careful to adopt the rhetoric of economic liberalisation, businessmen suspect he is still an avid believer in what he knows best - monopoly capitalism.

He says he would "design programmes which would double the income of rural households" and government would develop local industries for the larger domestic market that would emerge.

They fear it suggests an end to the withdrawal of government from business and the more export-oriented policies that the rest of south-east Asia has successfully followed. It would "make the business sector lie low", according to one Filipino banker.

Given Mr Cojuangco's record there is something chilling in his definition of a president's duties: "chief executive for all the sectors of the economy."

Richard Gourlay

PROFILE: Ramon 'Monching' Mitra

Popularity and pragmatism

RAMON MITRA, the 63-year-old Speaker of the House of Representatives, used to run barefoot to school, earned pennies herding cattle on horse-back and was apprenticed to a crocodile hunter at the age of 11.

Unlike many of the presidential candidates who rediscover humble origins as elections approach, his claim to "know the pain of hunger and what it means to sleep without having your dinner" carries a ring of truth.

As Speaker he has cut political deals and come closest to uniting a fractious set of congressmen behind President Corason Aquino's party, even if a number of his bills have been shot down in the Senate.

Such a mixture of populist politician and pragmatic party man should make Mr Mitra the "candidate to beat" in presidential elections on May 11. But he lacks one important ingredient: President Corason

Aquino's support. Last month, Mrs Aquino threw her support behind his opponent in the ruling LDP party, retired General Fidel Ramos, even though the party had chosen Mr Mitra at a party convention as the candidate.

Mrs Aquino's reservations appear to be based on the con-

monly aired view that Mr Mitra, who has built the strongest party machinery throughout the country, is a "traditional politician".

This less-than-flattering epithet in the Philippines contains the suggestion of unacceptable amounts of patronage.

Having lived for 20 years with President Marcos's brand

of patronage politics, many Filipinos view almost any form of political horse-trading with deep suspicion.

Mr Mitra has also been linked with illegal logging in Palawan through a local constabulary and old friend. He denies the charges but some of the mud has stuck, at least in Manila.

Whether his image is tainted in the countryside remains to be seen. His early life certainly could not have been better scripted for a politician. A rich businessman by the time he was born the illegitimate son of a half-American mother and the superintendent of a penal colony on Palawan Island.

His mother died when he was 11 months old after his father left for Manila and he was raised in poverty by her family. After escaping from the Japanese army during the Second World War, he was

reunited with his father - by that time a Philippines congressman - and began an expensive education that led him to journalism, foreign service at the United Nations, commercial farming and politics.

On the economic policy front, Mr Mitra espouses much of the market liberalisation on which many businessmen are pinning hopes of recovery. He is in favour of opening up the economy to foreign investment and competition and letting the peso find a more realistic international exchange rate.

And his solution for the burgeoning domestic debt problem is textbook economics: not new taxes, but better collection of existing ones. This suggestion has been less than enthusiastically received in Manila. It explains, he believes, why his candidacy has yet to gain popular support.

Richard Gourlay



Mitra: in favour of opening up the economy to foreign investment

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